DEPARTMENT OF THE ARMY
Omaha District, Corps of Engineers
106 South 15th Street
Omaha, Nebraska 68102-1618

:NOTICE: Failure to acknowledge : :all amendments may cause rejec- : :tion of the offer. See FAR : :52.215-1 of Section 00100 :	**Solicitation No. DACA45 03 R 0026** Date of Issue: 14 APR 2003 **Date of Receiving Proposals: 16 MAY 2003**

Amendment No. 0002
05 May 2003

SUBJECT: Amendment No. 0002 to Request for Proposal Solicitation Package for Design and Construction of Main Fire Station at Fort Carson, CO. Solicitation No. DACA45 03 R 0026.

TO: Prospective Offerors and Others Concerned

1. The specifications and drawings for subject project are hereby modified as follows (revise all specification indices, attachment lists, and drawing indices accordingly).

a. Specifications. (Descriptive Changes.)

(1) **Section 00100, Page 2**, delete title and contents of paragraph 2.2 and substitute “NOT USED”.

(2) **Section 00800, Page16**, add new paragraph as follows:

“1.34 GOVERNMENT FURNISHED PROPERTY

Pursuant to CONTRACT CLAUSES clause: "Government Property (Fixed Price Contracts)" the Government will furnish to the Contractor the following property to be incorporated or installed in the work. Such property will be loaded and transported by the Contractor to the project job site for installation. All such property will be installed or incorporated into the work at the expense of the Contractor. The Contractor shall verify the quantity and condition of such Government-furnished property when delivered to him, acknowledge receipt thereof in writing to the Contracting Officer, and in case of damage to or shortage of such property, shall within 24 hours report in writing such damage or shortage to the Contracting Officer.

Quantity	Item	Description
1	Antenna	Satellite dish (weather data),
1	Antenna	BSTRS Radio Antenna
1	Antenna	BSTRS radio antenna
1	Antenna	Local weather gathering antenna,
1	Antenna	VHF antenna,
2	Antennas	Harlow Radio Fire Alarm Reporting”
1	Generator	

(3) **Section 01006, Page 31**, paragraph 1.8.1 a.,

a) Line 7, delete "A 50 to 25 psi gas pressure regulation station shall be provide where indicated."

substitute:

"A 90 to 50 psi gas pressure regulation station shall be provided where indicated with 4 bollards around the unit."

b) Delete contents of paragraph 1.8.1 e. and substitute:

"Service lines shall not be installed under or routed thru the facility. Except for piping located at the new gas meter/service regulator assemblies, no aboveground gas piping shall be exposed to view. The service line shall enter the buildings in an accessible location outside the mechanical room areas and aboveground. The aboveground gas meter/service regulator assemblies shall be hidden from view to the greatest extent possible."

(4) **Section 01007, Page 5,** paragraph 1.1.1, top of page, delete "EI 16E500 Lighting Design" and substitute: "TI 811-16 Lighting Design".

(5) **Section 01007, Page 6,** paragraph 1.1.1, add the the following references under "Telecommunications Industry..."

"UFC 3-520-01 Interior Electrical Systems
TM 5-811-1 Electrical Power Supply & Distribution"

(6) **Section 01007, Page 6,** paragraph 1.1.2, line 4, delete "The existing main station (Building 1518) will be demolished."

(7) **Section 01007, Page 7,** delete tilte and contents of paragraph 1.1.9 and substitute "Not Used".

(8) **Section 01007, Page 7,** paragraph 1.1.10, second subparagraph, first line, delete "The electrical service conductors for the existing fire station shall be removed back to the existing pad-mounted switch."

(9) **Section 01007, Page 8,** paragraph 1.2 a. 1), third line, after "...chillers is outside the unobstructed space", delete "or on the roof".

(10) **Section 01007, Page 9,** paragraph 1.4.1, after "The existing fire station transformer shall be" delete: "removed and turned over to the Contracting Officer or His/Her Representative" and substitute: "retained since it serves the Theatre"

(11) **Section 01007, Page 10,** paragraph 1.5.4, line 6, after "spare wells of the loop feed." Add: "Provide bayonet fuse in series with current limiting fuse."

(12) **Section 01007, Page 13,** paragraph 1.7.2, line 5, delete: "electrical room or otherwise indicated in this section" and substitute: "mechanical room".

(13) **Section 01007, Page 22,** paragraph 1.11.3, first line, delete: "34" and substitute: "32".

(14) **Section 01007, Page 23,** paragraph 1.11.10, delete the last sentence: "All lighting in all dorm rooms shall be controlled from the Dispatch Center."

(15) **Section 01007, Page 24,** paragraph 1.12.1,

a) Second subparagraph, line 1, delete "A new duct bank will be run on the" and substitute "A new duct bank consisting of 2-4" ducts, 1 with 4-1" innerducts will be run on the".

b) Second subparagraph, line 6, delete A new fiber-optic line will be installed from the new facility in the new duct bank to manhole 405A and then continue in existing duct to building 1551 and terminated there."

Substitute:

"A new 12 strand single mode fiber optic cable will be installed from the new facility in one of the new innerducts to manhole 405A and then continue in an existing innerduct to building 1551 and terminated there."

(16) **Section 01007, Page 25**, paragraph 1.13, third subparagraph:

a) Line 2, delete "j-hooks rated for Category 5e cabling or by the use of cable trays." and substitute: "1" EMT conduit and cable tray."

b) Also following that, delete "If cable trays are used, the" and substitute "The"

(17) **Section 01007, Page 25**, paragraph 1.13.2, add the following to the paragraph: "Install a 120 volt, 20 AMP dual AC outlet on a dedicated circuit breaker on the telephone terminal backboard in the communication rooms."

Add the following to the end of paragraph 1.13.2:

"Install a #6 ground wire at the telephone terminal backboards and connect it to the building's metallic ground. Leave sufficient coil to reach any part of the telephone backboard/equipment-racks/cabinets."

(18) **Section 01007, Page 25**, paragraph 1.13.3, line 1, delete, "4 pair, EIA-TIA 568B Category-5e, unshielded twisted pair (UTP), plenum rated, solid copper station cable."

substitute:

"Connect all standard MILCON outlets from the telephone terminal

backboard and/or communications equipment room with two 4-Pair, TIA/EIA 568-B Category 6, unshielded twisted pair (UTP) solid copper station cable. Connect all single 8-position wall/pay telephone outlets from the telephone terminal backboard with one-4-pair, TIA/EIA 568-B CAT 6, UTP cable."

(19) **Section 01007, Page 26**, paragraph 1.13.4, line 3, delete "Each outlet shall be RJ-45, eight pin." and substitute "Each jack shall be an 8 pin modular (RJ-45) type." In line 4, delete "3/4"" and substitute "1"".

(20) **Section 01007, Page 26**, paragraph 1.13.4, add the following requirements to the "TELEPHONE/LAN OUTLETS" table:

Add single connector telephone outlets mounted 48" AFF to Communication Rooms 113 & 164, Apparatus Bays 135A & 135E near the doors.

Add dual connector outlets to Room 107 Dispatch/911 Center and to Room 108 911 Supervisor.

(21) **Section 01007, Page 27**, paragraph 1.13.4, last paragraph, third line, after: "center of the conference table" add: "center in room". Fourth line, delete: "Plus a conduit is... requirements with the table."

(22) **Section 01007, Page 27**, paragraph 1.13.7, second subparagraph, line 2, delete: "installed by others" and substitute: "relocated by the contractor".

(23) **Section 01007, Page 27**, paragraph 1.13.7.1, title, after: "Dispatch" add "911". Line 3, delete "some kind of".

(24) **Section 01007, Page 28**, delete paragraph number "1.13" for title "PUBLIC ADDRESS PA SYSTEM" and substitute "1.13A". Within the paragraph 6 lines down, after: "...Communication Room" add "(164)". Second subparagraph, line 2, after: "...controlled by the Dispatch" add "911".

(25) **Section 01007, Page 29**, paragraph 1.14, line 5, after: "...specification UFGS 16751." add: "Contractor shall provide and install a ceiling dome camera (weatherproof) and monitor."

(26) **Section 01007, Page 31**, paragraph 1.17.1, last sentence, delete: "or not in conduit".

(27) **Section 01007, Page 31**, paragraph 1.17.3, delete contents and substitute:

"Wiring shall consist of insulated conductors installed in electrical metallic tubing (EMT). Raceways shall be concealed within finished walls, ceilings, and floors. Conduit which is exposed along walls in areas which are subject to damage such as the Apparatus Bay and Vehicle Maintenance shall use intermediate metal conduit IMC) along the walls."

(28) **Section 01007, Page 31**, paragraph 1.17.3, add the following

to the paragraph:

"Install a nylon pull cord in all entrance conduits or innerduct. All empty conduit and conduits containing only copper communications cabling routed to administrative and hospital outlet boxes shall be provided with a pull cord for future installation of fiber optic cable."

(29) **Section 01007, Page 33**, paragraph 1.20, line 6, after: "...shall be located in the Dispatch" add "911".

(30) **Section 01332, Page 7**, paragraph 1.5.4.1, top of page, after "J.dgn file format" add: "or AutoCADD (Version 2002), however, the final As-Built drawings shall all be delivered in Microstation J.dgn file format, see Section 01040: AS-BUILT DRAWINGS".

(31) **Section 01332, Page 22**, paragraph 3.7.1.3, Item *3), third line, after "Microstation J" add: "or AutoCADD (Version 2002)".

(32) **Section 01332, Page 23**, paragraph 3.7.1.4, Item *3), third line, after "Microstation J" add: "or AutoCADD (Version 2002)".

(33) **Section 01332, Page 24**, paragraph 3.7.1.5, Item *2), first line, after "Microstation J" add: "or AutoCADD (Version 2002)".

(34) **Section 01332, Page 26**, paragraph 3.7.1.6, Item *3), first line, after "Microstation J" add: "or AutoCADD (Version 2002)".

(35) **Page Attachment 1-6**, paragraph 6.2.2., last subparagraph, first line, delete "An accurate determination of the depth to competent bedrock must be made if this option is to be used."

substitute:

"For the purposes of bidding, an assumed depth to bedrock of 60 feet may be used. However, an accurate determination of the depth to competent bedrock must be made if this option is to be used."

b. Specifications (New and/or Revised and Reissued). Delete and substitute or add specification pages as noted below. The substituted pages are revised and reissued with this amendment.

Pages Deleted	Pages Substituted or Added
Section 01003, Page 1-55	Section 01003, Pages 1-54

c. Drawings (Reissued). The following drawing sheet of drawing code AF 730-10-01 is revised with latest revision date of 02 May 2003, and reissued with this amendment.

(1) Sheet U1.01

d. Drawings (New). The following new drawings sheet of drawing code AF 730-10-01, dated 24 April 2003 is hereby added to the RFP drawings and is issued with this amendment.

(1) Sheet IC.01

2. This amendment is a part of the proposing papers and its receipt shall be acknowledged on the Standard Form 1442. All other conditions and requirements of the request for proposal remain unchanged. If the proposals have been mailed prior to receiving this amendment, you will notify the office where proposals are received, in the specified manner, immediately of its receipt and of any changes in your proposal occasioned thereby.

a. Hand-Carried Proposals shall be delivered to the U.S. Army Corps of Engineers, Omaha District, Contracting Division (Room 301), 106 South 15th Street, Omaha, Nebraska 68102-1618.

b. Mailed Proposals shall be addressed as noted in Item 8 on Page 00010-1 of Standard Form 1442.

3. Offers will be received until 2:00 p.m., local time at place of receiving proposals, 16 May 2003.

Attachments:
Specs listed in 1.b., above
Dwgs. listed in 1.c. and 1.d., above

U.S. Army Engineer District, Omaha
Corps of Engineers
106 South 15th Street
Omaha, Nebraska 68102-1618

5 May 2003
mrp/4413

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01003

ARCHITECTURAL BUILDING REQUIREMENTS

SECTION 01003

ARCHITECTURAL BUILDING REQUIREMENTS

PART 1 ARCHITECTURAL BUILDING REQUIREMENTS

1.1 FUNCTIONAL PLAN REQUIREMENTS

The facility design is based upon English measuring units. All dimensions shown on Architectural sheets are indicated in feet and inch units. The overall design and configuration can be slightly altered as long as each individual room area is not reduced and the overall building area is not changed. The areas shown on the drawings for the individual rooms is the minimum area to be provided for that room. Design alterations will be allowed as required for material modular sizing considerations, economy of detail connections, access for utilities and handicap provisions.

It is important that the functional integrity of the floor plan be maintained and any changes that the Contractor proposes to the RFP documents shall be submitted to the government for approval.

The architectural component of the project is a 17,314 square feet single story facility with a partial mezzanine. The final facility design and exterior features of the facility will reflect the furnished drawings and technical requirements outlined in the RFP and shall conform to the Fort Carson Installation Design Guide. The contractor shall update all room names and numbers on all drawings and schedules as appropriate.

This facility will include the following Common Support, Administrative, and Operations areas.

The layout of the mechanical, electrical and communication spaces are suggestive and may require wall configurations to be slightly altered to conform with equipment requirements. It shall be the responsibility of the contractor to verify that there is adequate space in rooms, chases, and above ceilings for all mechanical, electrical, and communication equipment and that coordination for this equipment installation and function occurs.

All attempts shall be made to locate structural columns within walls, except in the Apparatus Bays. The Apparatus Bays shall be clear span and columns will not be permitted within the bays, but only at the permiter walls. Structural elements such as rigid frames that affect the function and impede on the usable space and volume of a room shall not be permitted. Column locations shall be approved by the Government. In-wall columns shall be concealed where ever possible. In-wall columns and pilaster protrusions (including finishes) shall be limited to 6-inches. These column locations however, shall be coordinated fully with equipment, specialties, furniture, and systems furniture layouts so as not to impact the function of such items.

Fire separation walls and egress capacities from the facility shall meet or exceed the requirements of NFPA 101 - Life Safety Code, and Military Handbook 01008C - Fire Protection for Facilities. The Military Handbook

01008C shall have precedence over all other fire codes. This facility will be completely fire sprinklered as part of the requirement. The facility shall have a complete fire code analysis by a fire protection engineer to determine the location of all fire rated walls, ceilings, and doors.

Provisions in the design and construction of the facility shall be made to accommodate building movement and expansion both during construction and after the facility is completed and occupied. With the large floor and roof areas for this project, structural steel and roof framing shall accommodate differential movement from expansion and contraction due to temperature differentials that will seasonally occur and throughout the day, without damage to adjacent areas, and connections to structural and other elements.

1.2 DESIGN CRITERIA

The technical specifications provided shall serve as the minimum design standards established for this project. Design publications listed in each specification section shall be used as sources of criteria for design. The criteria from these sources may be supplemented, but not supplanted, by applicable criteria contained in nationally recognized codes, standards, and specifications. The floor plan shall meet the needs of the building users, and as such, no function shall be changed or removed from the design without approval of the building users.

References in the following specifications to equipment, material, articles, or patented processes by trade name, make, or catalog number shall be regarded as establishing a standard of quality and not be construed as limiting competition.

1.2.1 TECHNICAL SPECIFICATIONS

The government-provided technical guide specifications shall be completely edited and fully coordinated with the drawings to accurately and clearly identify the product and installation requirements for this facility.

The provided specifications define the minimum requirements and level of quality for items of equipment, materials, installation, and testing that shall be provided for the facility. Where items of equipment, materials, installation, or testing requirements are not covered in the provided specifications, special sectionsor paragraphs, shall be added within each guide specification, or new specifications sections shall be prepared to cover those subjects.

1.2.2 PUBLICATIONS

The design publications listed below shall be used as sources of criteria for the architectural design. The most current edition of the code or standard shall be used as criteria for the design. The criteria from these sources may be supplemented but not supplanted, by applicable criteria contained in nationally recognized codes, and standards.

1.2.2.1 National Fire Protection Association

Life Safety Code 101, most current edition (See SECTION 01008 - Fire Protection Requirements)

Installation, Maintenance, and Use of Fire Service Communications Systems 1221, 2002 Edition

1.2.2.2 International Conference of Building Officials

International Building Code (2000 Edition)

1.2.2.3 Military Handbooks

MIL HDBK 1190 - Facility Planning and Design Guide, Dated 1 September 1987

Military Handbook 1008C Fire Protection for Facilities (1997)(This publication takes precedence over all others)

1.2.2.4 American with Disabilities Act (ADA)

Accessibility Guidelines for Buildings and Facilities (July 1, 1994)

Uniform Federal Accessibility Standards (UFAS) (Latest Edition)

1.2.2.5 Design Charrette Documentation

FY-03 Congressional Add, P.N. 12365 Main Fire Station, Fort Carson, Colorado

1.2.2.6 Occupational Safety and Health (O.S.H.A.) Standards

1.2.2.7 Installation Design Guide for Fort Carson, CO, September 2002.

1.2.2.8 Unified Facilities Criteria (UFC)

UFC-4-010-01, Draft, 12 July 2002, DOD Minimum Antiterrorism Standards for Buildings

1.3 DESIRED IMAGE AND ARCHITECTURAL COMPATIBILITY

The Proposer shall verify all existing conditions and dimensions during design and prior to construction.

The building shall fit the site and be compatible with the surrounding environment. Building facades and elevations shall match the appearance to the enclosed elevation drawings. Slight alterations will be allowed as required for material modular sizing as approved by the Government.

1.4 THE TYPE OF ACTIVITIES AND EQUIPMENT INVOLVED

The major functional activities of building are as follows:

Common Support, Administrative, and Operations areas:

The Common Support and public area is defined by the canopy and tower elements. Common support areas include the main entry, vestibules, waiting area, break room with kitchenette and vending, display case, conference room with provisions for a training classroom and testing, storage, electrical/UPS rooms, communications rooms, mechanical rooms, corridors, janitor closet, stairs, mezzanine, and Hazardous Materials/Generator

Storage outbuilding.

Administrative areas includes a wide variety of spaces necessary for the operation of the facility. Spaces include secretary receptionist, 911 supervisor and dispatch/911 center offices, dispatch/911 communications room, dispatch/911 toilet, chief fire inspector, fire inspector's open office suite, fire chief office, shift leaders office, fire chief/shift leader dorm room and toilet, administrative support (copier) area, and public toilets.

Operations areas include the apparatus bays which is a high roofed area with clerestory. Vehicles parked in the apparatus bays are critical to the overall mission and operations but are not in continuous operation. The vehicle apparatus bays shall be used for storage of vehicles and could involve daily minor types of repair and inspections, but will not include labor intensive types of vehicle repairs. Also included are the pressure washing equipment rooms, breathing apparatus recharging room, fire gear cleaning room, disinfection/EMS/decontamination room, wet and dry chemical fire extinguisher room, and storage rooms.

Operations area support spaces for personnel include dorm rooms, toilets and lockers, captains offices and dorms, physical training facilities, kitchen, dining room, refrigerator/freezer room, pantry, library/crew meeting room, day room, and laundry room. An exterior vehicle wash rack will be provided at the rear of the facility.

Additional description of the individual spaces within these three major groups are further defined within this Section.

1.5 TYPE AND METHOD OF CONSTRUCTION

1.5.1 Facility Construction

The facility shall be designed as permanent construction. The definition of permanent construction per MIL HDBK 1190: Buildings and facilities designed and constructed to serve a life expectancy of more than 25 years, shall be energy efficient, and must have finishes, materials, and systems selected for low maintenance and low life-cycle cost.

Types and methods of construction are limited to the criteria established herein and shall meet all governing codes.

Wood construction shall not be permitted.

All concrete masonry units and/or concrete walls used in the buildings shall be developed on a standard masonry module. Standardization of masonry wall design shall be developed which result in as few cut blocks as possible. Masonry structural properties shall comply with requirements outlined in Section 01005 STRUCTURAL REQUIREMENTS.

Walls, windows, floors,and roofing systems shall be permanently constructed and attached to each other. All construction shall be done in a workman like manner, properly installed in accordance with manufacturer's recommendations and finished.

Construction and methods, materials, systems, etc. shall be of a quality

that requires little or no maintenance. The Contractor shall not change the exterior material selection and colors indicated. Materials have been selected to be durable, low maintenance and economical and reflect the level of quality required for this facility and area of the Post.

1.5.2 Exterior Walls and Finish Materials

Exterior walls and finish materials shall be selected on the basis of architectural compatibility and appearance in accordance with the design provided. The outside or exposed face of the exterior walls shall be composed of face brick, integrally colored concrete masonry units (split face, 1/2 scored, or burnished)and cast stone trim and banding (as indicated on the drawings). A unique color, style and/or shape of concrete masonry units or face brick (different than the remainder of the building) shall be provided at the main entrance/canopy/tower segment of the building as shown on the drawings.

Exterior walls of the building can be a masonry cavity wall system consisting of 4-inch face brick or concrete masonry units on the exterior, a minimum 1-inch air space, 2-inch minimum cavity wall insulation, and a minimum 8-inch concrete masonry unit interior wythe. This will provide a durable interior surface for the abuse that may occur in an apparatus bays and adjacent shop environments.

Other exterior walls at administrative, sleeping, or living areas where shop environments do not occur can be a masonry cavity wall as described above, with with a gypsum wallboard interior finish.

A masonry veneer system for the non apparatus bay and shop portions of the building (administrative, sleeping, or living areas where shop environments do not occur) can be considered where a hard, durable, and impact resistant interior material is not necessary. This will consist of non-load bearing 4-inch nominal face brick or split face concrete masonry units, a 2-inch air space, an air barrier, 1-inch insulating sheathing to minimize thermal bridging, sheathing (cementitious type board instead of gypsum board, 4-inch steel studs, fiberglass insulation meeting the specified R-value, vapor retarder membrane, and a 5/8-inch interior layer of gypsum wallboard.

The Hazmat/Generator Storage Building shall have exterior walls where the base is identical in appaearance to that of the Main Fire Station. The upper portion of the walls can be face brick or preinsulated metal wall panels where the color is identical to the face brick. The roof shall match the main fire station.

The screen walls shall match the appearance of the Main Fire Station walls.

The patio wall shall match the appearance of the Main Fire Station. The patio wall shall be 3'-2" to 3'-10" high. The interior side of the patio wall shall match the appearance of the fire station walls. The patio shall accommodate a gas grill, which shall be built into or be part of the wall.

All walls shall require a minimum of 2-inches of rigid perimeter insulation on the inside of foundation walls extending down to below the frost line. All areas where thermal bridging can occur shall be insulated to meet the R-value requirements. The insulation and vapor retarder membranes shall be continuous.

Exterior glazed windows, storefront, and window wall systems for the building shall have thermally broken frames. The finish on the exterior

window systems shall be anodized aluminum, color consistent with the Installation Design Guide. The 1-inch insulating glass shall be tinted as indicated in the Installation Design Guide.

All opaque portions of exterior walls shall have a minimum R-value of 15, based on aged insulation values for the entire exterior wall assembly.

1.5.3 Interior Wall Construction

All interior walls shall be permanent construction. Demountable partitions shall not be acceptable.

Interior walls requiring security, fire ratings, or sound ratings, and other walls extending to the underside of the roof structure shall be designed and constructed in accordance with UL or other approved tested assemblies and systems. These walls shall also have provisions for structural deflection of the roof structure above, while maintaining the walls integrity for fire, sound, and security ratings.

Walls assemblies around the corridors, break room, conference room, all dorm rooms, Dispatch/911 Center, laundry room, day room, and physical fitness center shall be full height, shall be sound rated with sound attenuation insulation.

See Section 01005: Structural Requirements for criteria used to calculate loads and subsequent deflection control impacting interior walls.

Walls around or separating the Apparatus Bays, shop areas, storage rooms, and mechanical rooms shall be fire and sound rated concrete masonry units and shall absorb sound and vibrations. Provide furring and gypsum board on the side that faces corridors, offices, work areas and other occupied spaces.

The interior side of exterior walls and the interior walls of the Apparatus Bays, Janitor Closets, Storage Rooms, Alcoves, Disinfection/EMS Decontamination Room, Fire Gear Cleaning Room, and Training Room shall be of a base material and have a finish that is durable, impact resistant, is scrubbable, washable, cleanable, and resists and does not stain or degrade when exposed to chemicals, blood, cleaning agents, and solvents. Gypsum board or a surface that can be easily damaged is not acceptable.

All interior walls around the perimeter of the Dispatch/911 Center including rooms 105, 106, 107, 108, and 110 shall be minimum 8-inch concrete masonry units. All walls, doors, windows and openings shall be constructed and provide security, fire protection, bullet resistance as required by NFPA 1221. Fire shutters for window openings shall be included as necessary, but shall not interfere with Dispatch/911 operations or equipment.

1.5.4 Interior Wall Finishes

Interior wall finishes shall be high quality, low maintenance finishes suitable for the environment of this building.

Generally interior spaces shall receive a painted finish except as described herein and as indicated on the drawings. Color, texture, and pattern selections shall conform to the Fort Carson Installation Design Guide.

Toilet roomsand locker rooms shall receive a ceramic tile wainscot on all walls. Showers and shower drying areas shall have full height ceramic tile walls.

Office areas, dorm rooms and normally occupied areas with gypsum wallboard shall have a painted finish or wall covering finish as indicated on the drawings and coordinated with the Section 01004: INTERIOR DESIGN REQUIREMENTS. The paint system shall be a high performance semi-gloss system. Gypsum wallboard finish level shall be to a level 5 in accordance with the Gypsum Construction Handbook, 90th anniversary edition, Published by U.S. Gypsum Company. Oil based pints shall not be allowed.

The following areas shall have an orange peel wall texture: toilets, locker rooms, janitor, mechanical, electrical, maintenance, storage. All walls and areas to receive an orange peel wall texture shall be finished to a level 4 in accordance with the Gypsum Construction Handbook, 90th anniversary edition, Published by U.S. Gypsum Company.

All other rooms to receive a paint finish not otherwise indicated shall receive an orange peel finish wall texture. All walls to receive an orange peel texture shall have the gypsum board walls finished to a level 4 in accordance with the Gypsum Construction Handbook, 90th anniversary edition, Published by U.S. Gypsum Company.

See paint paragraph for other painting systems requirements.

All walls and areas to receive wall covering shall be finished to a level 4 in accordance with the Gypsum Construction Handbook, 90th anniversary edition, Published by U.S. Gypsum Company.

All walls above ceilings not exposed to view shall have a minimum level of gypsum wallboard finish of 1 in accordance with the Gypsum Construction Handbook, 90th Anniversary Edition, Published by U.S. gypsum Company, and as required to meet sound and fire rating requirements. All walls and partitions not extending to the underside of structure above shall extend a minimum 6-inches above the ceiling.

Walls with ceramic tile finishes on steel stud partitions shall have cement backer board as a substrate for tile. Corridors within this facility will be painted to help provide a more durable surface in these areas.

All external corners of interior walls except the Apparatus Bay and adjacent shops areas shall have durable integrally colored vinyl corner protection Coordinate the color schemes with other finishes.

All external corners of interior walls in the Apparatus Bay and adjacent shops areas (except where bullnose masonry units occur) shall have stainless steel corner guards.

1.5.5 Floors

All interior floors shall be concrete slabs.

Depressed floor slabs and mortar bed method shall be used for all floors that will receive ceramic and porcelain tile in accordance with Tile Council of America (TCA) methods.

The slab of the Dispatch/911 Center shall be recessed for the installation of a raised floor system. The structural floor slab shall be recessed a minimum 12-inches below the level of the finished raised floor. The raised floor system shall have 2 feet by 2 feet fromed steel panels supported on raised pedestals with bolted stringers. See scheduled floor finishes for each room. See SECTION 01005: Structural Requirements for criteria for slabs on grade and for the design of the mezzanine floor.

A drainage trench to an oil water separator shall be provided at the apparatus bay and the exterior wash rack. Evaporative collection trench drains shall be provided at all other vehicle bays as shown. The drainage trenches shall be a minimum clearance width of 12 inches and 8 inches deep. The drainage trench shall have an aluminum or "G-90" galvanized steel open grate with removable panels and finished flush to match the surrounding floor. The grating shall be capable of supporting all vehicle loads. The purpose of the drainage trench is to catch water runoff from the vehicles. Except for the wash bay, the trench shall be self contained with no drainage to an outside source. All concrete floor slabs in the Apparatus Bays shall slope positively away from walls and doors and towards the trenches.

Depressed floor slabs shall be used to receive recessed entrance floor mats and frames at vestibules, alcoves to Apparatus Bay, and all other locations where recessed floor mats occur.

All exterior doors shall have structural stoops, designed and constructed so there are not any steps.

Floor of the HAZMAT/Generator Storage shall have a 4-inch curb as required for containment of spills.

1.5.6 Floor Finishes

Flooring for this facility shall consist of the following finishes.

Concrete floors shall have a non-skid finish and shall be impervious to fuels, (including gasoline, diesel, JP-4, and JP-8). The floor surface must also be sealed to make it impervious to automotive lubricants, cleaning chemicals, and fire fighting chemicals.

Concrete floors of the Apparatus Bays shall be sealed and have a light broomed finish with a light color.

Floors of the Laundry Room and Janitor's Closets shall be sealed concrete.

Porcelain tile shall be installed in Vestibules, toilet rooms, locker rooms including showers, dining room, and kitchen, and shall be set in a cement mortar bed. Ceramic tile floors in toilet rooms and associated areas shall be level except in the areas around floor drains which shall be sloped to

the drains or as indicated on the drawings. Shower areas, drying areas, and other areas indicated on the drawings shall have the floor slope to allow moisture to flow to floor drains. Control and expansion joints shall be provided in tile floors in accordance with Tile Council of America recommendations.

Vestibule areas shall receive porcelain tile (around the recessed floor mat).

The Alcoves immediately adjacent to the Apparatus Bays shall receive a recessed floor mat.

The Kitchen and Dining Room shall receive porcelain tile floor set in a cement mortar bed, in accordance with Tile Council of America Method #F112.

Vinyl composition tile shall be used in the Break Room, recesses for drinking fountains, Main Entry Corridor and Corridors in the administrative portion of the facility..

Carpeting shall be used in the corridors of the sleeping areas, all office areas, Secretary/Reception area, dorm rooms, Day Room, Physical Training area, Library/Crew Meeting Area.

In the Dispatch/911 Center, removable carpet tiles shall be used over the raised floor system. The concrete floor slab beneath the raised floor system shall be coated with an epoxy coating.

The mechanical, electrical, communications, and all other shop and storage areas immediately adjacent to the Apparatus Bays shall have exposed concrete slabs and shall be cleaned and sealed with a concrete hardener for durability and minimization of dust.

1.5.7 Ceiling Finishes

Gypsum wallboard ceilings shall be furnished in vestibules, toilet areas,locker and shower rooms, laundry room, janitor's closets, physical fitness areas, dorm and sleeping rooms rooms, kitchen, protective clothing lockers, disinfection/EMS/decontamination room, fire gear cleaning room, apparatus bay alcoves, and shall be painted as indicated and in accordance with specification Section 09900. All gypsum wallboard ceilings shall be a minimum 5/8" thick and shall be painted with a semi-gloss enamel paint. All gypsum wallboard ceilings shall have a smooth texture. All ceiling areas shall be finished to a level 5 in accordance with the Gypsum Construction Handbook, 90th anniversary edition, Published by U.S. Gypsum Company.

The remaining areas, unless otherwise indicated, are generally acoustical tile ceiling panels at least 3/4-inch thick mineral fiber material in a medium-duty suspension system. Acoustical tile shall be installed where indicated on the Room Material and Finish Schedule. Gypsum board and acoustical tile ceilings (gypsum board soffit borders with raised acoustical tile centers) shall be constructed for the Conference Room , Dining Room , Day Room , Library/Crew Meeting Room, and Main Entry Corridor.

It is acceptable for mechanical, Hazmat Storage, generator room, mezzanine, electrical, UPS, Apparatus Bays, and communication equipment rooms to have exposed structures that do not require any finished ceilings. However, exposed structural elements in these areas will require painting or a

spray-applied fireproofing depending on structural design and compliance with applicable building and fire safety code requirements.

1.5.7.1 Ceiling Height

Minimum allowable clearance for ceilings shall be 8 feet, 6 inches above the finish flooring in all room except the Apparatus Bays #135A through E, which shall have a clear height of 17 feet 8 inches to the underside of structure.

1.5.8 Building Demolition and Removal

Building 1518, the existing main fire station, shall be demolished as part of this contract. Building 1518 is located northwest of the new Main Fire Station location, across Prussman Boulevard. The Building Demolition shall be phased and shall not begin until the new Main Fire Station is substantially complete and ready to receive equipment from building 1518. Equipment that is GFGI and that is to be moved from Building 1518 to the new Main Fire Station is not salvageable to the contractor. This shall be coordinated during design. The critical item will be the relocation of the existing 911 and Dispatch equipment and generator from the existing building into the new Main Fire Station. The relocation and time of relocation of applicable Dispatch/911 equipment and generator shall be fully coordinated with the Contracting Officers's representative. Building 1518 demolition shall not begin until all equipment that is associated with the new Main Fire Station is removed.

Existing Building 1518 is an approximately 160 feet by 68 feet single story wood framed structure with concrete foundation and spread footings to a depth of 4 feet with a slab on grade. The eave hight is approximately 12 feet and the ridge height approximately 20 feet. Roofing material is aspahalt shingles.

The building demolition includes the removal of the building, all floor slabs, utility service lines to the building, 3 wooden poles holding the existing "Harlow" antennas, removal of exterior drives, walks, stoops, planters and signage that have the sole purpose of servicing the existing fire station. The pavement shall be removed as indicated in Section 01002: SITE WORK. The demolition of the building shall be complete, including all footings and foundations.

Upon completion of the removal, the site shall be fine graded for drainage and established with turf (seed).

Records from an asbestos survey dated 16 September 1999 show that there is 42 linear feet of (2-3% Chrysotile asbestos) exterior window putty and 20 square feet of (10% Chrysotile asbestos) on roof flashing tar. The survey will be furnished to the contractor during design. There is not any lead based paint present.

1.6 FUNCTIONAL REQUIREMENTS

1.6.1 Equipment and Specialties.

See Specification Sections 01004: INTERIOR DESIGN REQUIREMENTS, 01006: MECHANICAL REQUIRENMENTS, 01007: ELECTRICAL REQUIREMENTS,and 01008: FIRE PROTECTION REQUIREMENTS for furniture and furnishings, mechanical equipment, electrical equipment, and fire protection equipment, respectively. The equipment listed herein is not all inclusive and shall be

coordinated by the contractor with the building users during the design for completeness with regard to items that have been added, deleted, or where requirements have been altered. There will be a coordination effort required with the users of the facilities to understand the particulars of the Equipment and Specialties. Some minor changes to the Equipment and Specialties could possibly occur. The final equipment locations shall coordinated with the building users as intended for functionality and shall be coordinated with the building design, including locations of electrical and communication outlets, junction boxes for furniture systems, mechanical systems, Dispatch/911 equipment, and lighting within the building. See the aforementioned Specification Sections for other equipment, furnishings and requirements. The equipment locations shall also be coordinated with other building features such as architectural elements, thermostats, lighting, power outlets, telephone outlets, data outlets, and location of TV's, etc.

1.6.1.1 Definitions/Classification of Equipment

Contractor Furnished/Contractor Installed: CFCI
Government Furnished/Contractor Installed: GFCI
Government Furnished/Government Installed: GFGI

1.6.1.2 Not Used

1.6.1.3 Not Used

1.6.1.4 Not Used

1.6.1.5 Function/Activity: Entry Vestibule 101

CFCI
Built-in "Knox Box" at exterior wall, fully recessed in the face brick.
Built-in weatherproof telephone for after hour building access, to Dispatch/911 Center.

1.6.1.6 Function/Activity: Entry Corridor 102

CFCI
Fire Extinguisher Cabinets and Fire Extinguishers as applicable.
CCTV ceiling mounted Camera and Accessories

GFCI
Fire Pole (Integrated into the building design and construction, mounted to the floor at the base and wall/ceiling above in the area that is open to above, located at the intersection of the north wall of Entry Corridor 102 and the east wall of Corridor 122 in front of the Secretary/Receptionist, and not interfering with building circulation.)

GFGI
Directory/Information Board

1.6.1.7 Function/Activity: Secretary Receptionist 103

CFCI
Built-in radiused Reception Counter with 2 surface heights (1 standing height and 1 sitting and handicapped accessible height).
Built-in wall cabinets at locations shown where there is a full height wall.

GFGI
Computer Equipment,
See Drawings, I-series for furnishings and furniture footprint as applicable.
Fax Machine

1.6.1.8 Function/Activity: Waiting Area 104

CFCI
Built in Casework Bench with storage below/within.

1.6.1.9 Function/Activity: Dispatch/911 Corridor 105

CFCI
8 Double Tier Metal Lockers - 12" x 12" x 72" (36" per tier).
Bullet Resistant Walls and Door Assembly
Fire Extinguisher Cabinets and Fire Extinguishers as applicable.

GFGI
Dispatch and 911 Computer Equipment and associated Computer Equipment Racks.

1.6.1.10 Function/Activity: Dispatch/911 Communications Room 106

CFCI
Bullet Resistant Wall Assembly

GFCI
Dispatch and 911 Computer Equipment and associated Computer Equipment Racks.

1.6.1.11 Function/Activity: Dispatch/911 Center 107

CFCI
Bullet Resistant Wall and Window Assembly
Fire Shutters

Ceiling Mounted Television Bracket and required support for GFGI television
PA System Accessories
CCTV Monitoring Equipment

GFCI
Existing Reinstalled Antenna Tower
Existing Reinstalled Antennae and Satellite Dishes

GFGI
Dispatch and 911 Computer Equipment and associated Computer Equipment Racks.
Dispatch and 911 Consoles and associated equipment.
Electric Unit Kitchen with 2 burner range, 1 sink, and 1 refrigerator, similar and equal to those built by "Dwyer Products Company).
Computer Equipment
Fax Machine
See Drawings, I-series for furnishings and furniture footprint as applicable.
27-inch Television
Video Cassette Recorder

1.6.1.12 Function/Activity: 911 Supervisor 108

CFCI
Bullet Resistant Wall and Window Assembly

GFGI
Dispatch and 911 Consoles, Radios, Receivers, and associated equipment.
Computer Equipment
Fax Machine
See Drawings, I-series for furnishings and furniture footprint as applicable.

1.6.1.13 Function/Activity: Toilet 110 and Public Toilet 112

CFCI
Handicapped Accessible
Toilet Accessories
Floor Drain
Bullet Resistant Wall Assembly for Toilet 110

1.6.1.14 Function/Activity: Corridors 111, 122, 144, 147, 162, 166, 170 and 171

CFCI
Fire Extinguisher Cabinets and Fire Extinguishers as applicable.
Electric Water Coolers (Standard and Handicapped Accessible) as applicable.

1.6.1.15 Function/Activity: Radio/Communications Closet 113 and Communications Room 164

CFCI
Telephone Backer Board as required
Telephone, Data, and Communications Building Support Equipment and accessories as required
PA System Equipment and Accessories

GFGI
Dispatch and 911 Radios and associated equipment.

1.6.1.16 Function/Activity: Administrative Storage 114

GFGI
Supply Shelving Units.

1.6.1.17 Function/Activity: Janitor Closet 115 and 159

CFCI
Shelf with 4 Integral Mop Holders
Floor Mounted Mop Sink
Floor Drain

1.6.1.18 Function/Activity: Conference Room 117

CFCI
Ceiling Mounted Recessed Motorized Projection Screen and Controls, similar and equal to Draper Signature Series
Floor Mounted recessed in floor Duplex Electrical Receptacle centered in room
Floor Mounted recessed in floor Data and Communications Receptacle centered in room
Ceiling Mounted Television Bracket and required support for GFGI television
Ceiling Mounted Retracting Video Projector Mount, similar and equal to Draper LCD Mount
4'-0" x 8'-0" Dry Marker Board

GFGI
Computer Equipment
See Drawings, I-series for furnishings and furniture footprint as applicable.
27-inch Television
Video Cassette Recorder
Computer Projector

1.6.1.19 Function/Activity: Conference Room Storage 118, Storage 124, and Storage 175

CFCI
Built-in Closet Shelving and Clothes Rod

1.6.1.20 Function/Activity: Break Room 119

CFCI
Built-in Base and Wall Cabinets
Single Bowl Stainless Steel Bar Sink with Gooseneck Faucet in Countertop
Water Supply for Coffee Maker
Water Supply for Ice Maker in Refrigerator
Ceiling Mounted Television Bracket and required support for GFGI television

GFGI
Refrigerator with Ice Maker
See Drawings, I-series for furnishings and furniture footprint as applicable.
27-inch Television
Video Cassette Recorder

1.6.1.21 Function/Activity: Administrative Support 120

CFCI
Built-in Base and Wall Cabinets

GFGI
Computer Equipment
Photo Copy Machine
Fax Machine

1.6.1.22 Function/Activity: Display Area 121

CFCI
Built-in (2'-2" wide x 2'-0" deep x 7'-0" high) Wood Display/Trophy Case with full height Lockable Glass Door/Hardware and 4 Adjustable Glass Shelves (7'-0" high). Any aluminum to have natural finish.

1.6.1.23 Function/Activity: Dorm Rooms 125, 145, 146, 148, 149, 150, 151, 152, 153, 154, 155, 168, and 169

CFCI
Built-in Wood Desk and Overhead Open Cabinet Unit with 2 Adjustable Shelves under a lowered soffit, plastic laminate writing surface.
2 Built-in Wood Wardrobe/Locker/Closet Units with 11" high drawers at the bottom, hat shelf 1'-0" from the top of unit, clothes hanging rod, lockable doors, and under a lowered soffit. Unit to be a total of 7'-0" high and lockable.

GFGI
Computer Equipment
See Drawings, I-series for furnishings and furniture footprint as applicable.

1.6.1.24 Function/Activity: Toilet 126

CFCI
Handicapped Accessible
Toilet Accessories
Built-in Linen Closet with 4 wood shelves
Shower and Base
Shower Curtain Rod, Shower Curtain, and Shower Toilet Accessories
Towel Bars, 36" long, 2 ea.

1.6.1.25 Function/Activity: Fire Chief Office 127

GFGI
Computer Equipment
Fax Machine
See Drawings, I-series for furnishings and furniture footprint as applicable.
27-inch Television
Video Cassette Recorder

1.6.1.26 Function/Activity: Shift Leader Office 128

GFGI
Computer Equipment
Fax Machine
See Drawings, I-series for furnishings and furniture footprint as applicable.

1.6.1.27 Function/Activity: Fire Inspector's Suite 130

GFGI
Computer Equipment
See Drawings, I-series for furnishings and furniture footprint as applicable.
Fax Machine
File Cabinets, lateral type, 7 ea., 3'-0" L, 5'-0" H, 2'-6" D

1.6.1.28 Function/Activity: Chief Fire Inspector's Office 131

GFGI
Computer Equipment
Fax Machine
See Drawings, I-series for furnishings and furniture footprint as applicable.

1.6.1.29 Function/Activity: Storage 132 and 133 (For Fire Inspector's Suite)

CFCI
Built-in Closet Shelving with 4 wood shelves

1.6.1.30 Function/Activity: Alcove 134, 137, 141

1.6.1.31 Function/Activity: Apparatus Bays 135 A through E

CFCI
Trench Drains, Evaporative Type
Emergency Eye washes and Showers, 2 each, with associated floor drains, one each side of Apparatus Bay
Utility Sinks, 2 each, one each side of Apparatus Bay
Fire Fighting Gear Lockers, 2 tier, 18" x 18" x 72" each (each tier is 36" high), 36 total, heavy duty metal mesh/ventilated (some could be located in Corridor 170).
Steel Stairs, Handrails, and Landing up to mezzanine with removable guardrails at landing.
Interior and Exterior Pipe guards at each overhead sectional door
Floor Drains and Condensate Drains as required
Compressed Air and retractable hoses and reels
Water Supply as required. Include Ice Machine

GFGI
Ice Machine
Hose Drying Rack

1.6.1.32 Function/Activity: Storage Room 1 and Storage Room 2, 136 and 140

CFCI
Floor Drains

GFGI
Heavy Duty Steel Shelving

1.6.1.33 Function/Activity: Disinfection/EMS Decontamination Room 138

CFCI
3 Compartment Stainless Steel Sink Unit with Heavy Duty Faucet
Heavy Duty Steel Shelving
One 3'-0" x 3'-0" Shower and Base
Shower Curtain Rod, Shower Curtain, and Shower Toilet Accessories

Towel Bars, 36" long, 2 ea.
Towel Pins, 6 ea.
Floor Drain
Custom Built Stainless Steel Equipment Wash and Base Drain Area with drain, Stainless Steel Grating/Drip Racks, 5'-0" High continuous Stainless Steel Backsplash, and Heavy Duty Stainless Steel Retainer Clamps
High Pressure Sprayer with 8 foot hose (commercial)
Heavy Duty Clothes Hanging Hooks, 6 ea.

1.6.1.34 Function/Activity: Fire Gear Cleaning 139

CFCI
Washer/Extractor (for fire gear)
Utility Sink
Heavy Duty Clothes Hanging Hooks, 6 ea.
Compressed Air
Floor Drain(s)

GFGI
Heavy Duty Work/Tool Bench (6'-0" wide x 2'-6" deep) with overhead shelving

1.6.1.35 Function/Activity: Wet/Dry Chemical Fire Extinguisher Room 142

CFCI
Floor Drain(s)
Compressed Air
Air Compressor and Accessories

GFGI
Heavy Duty Steel Shelving, 3 sets, 3 shelves each, 7'-0" long x 3'-0" deep x 6'0" high, 800 pound shelf capacity

1.6.1.36 Function/Activity: Breathing Apparatus Room 143

CFCI
Compressed Air
Computer Outlet
GFCI
SCBA Compressor and Controls
High Pressure Cylinder, 4 each
Mask Cabinet
Tool Box
PC, Monitor, and Printer
Fill Station
SCBA Units, 30 each
Air Bottles, 75 each
Heavy Duty Steel Storage Racks
Heavy Duty Steel Shelving, 3 sets, 3 shelves each, 7'-0" long x 3'-0" deep x 6'0" high, 800 pound shelf capacity
GFGI

Portable Trailered SCBA Filler Unit

1.6.1.37 Function/Activity: Men's Shower/Locker Room 156

CFCI
3'-0" x 3'-0" Showers and Bases, 3 each
Shower Curtain Rods (6 each), Shower Curtains (6 each), and Shower Toilet Accessories as applicable
Towel Bars, 36" long, 3 ea.
Towel Pins, 6 ea.
11 ea. Double Tier Metal Lockers - 12" x 12" x 72" (36" per tier, total of 22 Lockers), solid panel with venting, upper storage shelf, clothing hanger rod or hooks, and lockable with a padlock.
Floor Drains

1.6.1.38 Function/Activity: Men's Sinks 157

CFCI
Lavatories (3 each) in full vanity top with backsplash
Glass Mirrors, 3 each, (18" x 30" min.) or full wall mirror
Soap Dispensers (liquid type under counter), 3 each
Paper Towel Dispenser/Waste Receptacle Combination Units, 2 each (fully recessed)
Other Toilet Accessories as applicable
Medicine/Supply Storage Closet with 4 Wood Shelves
Towel Pins, 6 ea.
Floor Drain

1.6.1.39 Function/Activity: Men's Toilet 158

CFCI
Urinals, 3 each
Urinal Screens as applicable
Toilets, 2 each
Toilet partitions, as applicable with coat hooks
Toilet Tissue Dispensers (recessed in partition type)
Other Toilet Accessories as applicable
Floor Drain

1.6.1.40 Function/Activity: Women's Toilet 160

CFCI
Lavatories (1 each) in full vanity top with backsplash
Glass Mirrors, 1 each, (18" x 30" min.) or full wall mirror
Soap Dispensers (liquid type under counter), 1 each
Paper Towel Dispenser/Waste Receptacle Combination Units, 1 each (fully recessed)Toilets, 1 each
Toilet partitions, as applicable with coat hooks
Toilet Tissue Dispensers (recessed in partition type)
Sanitary Napkin Dispenser, 1 ea.
Sanitary Napkin Disposer, 1 ea.
Other Toilet Accessories as applicable

3 ea. Double Tier Metal Lockers - 12" x 12" x 72" (36" per tier, total of 6 Lockers), solid panel with venting, upper storage shelf, clothing hanger rod or hooks, and lockable with a padlock.
Towel Pins, 1 ea.

1.6.1.41 Function/Activity: Women's Shower 161

CFCI
3'-0" x 3'-0" Showers and Bases, 1 each
Shower Curtain Rods (2 each), Shower Curtains (2 each), and Shower Toilet Accessories as applicable
Towel Bars, 36" long, 1 ea.
Towel Pins, 2 ea.
Built-in Bench
Floor Drain

1.6.1.42 Function/Activity: Laundry Room 163

CFCI
Laundry/Utility Sink, 1 each
Built-in Wall Cabinet over Utility Sink
Built-in shelf over Washer/Dryer Area
Clothes Hanging Rods
Built-in Folding Table/Surface, 2'6" deep min., open underneath, standing height
Floor Drain
Washer and Dryer Utility Connections, 2 ea.
Dryer Exhaust, 2 each
Laundry Room Exhaust

GFGI
Washers, 2 each
Dryers, 2 each

1.6.1.43 Function/Activity: Library/Crew Meeting 166

CFCI
Ceiling Mounted Recessed Motorized Projection Screen and Controls, similar and equal to Draper Signature Series
Floor Mounted recessed in floor Duplex Electrical Receptacles centered in room
Floor Mounted recessed in floor Data and Communications Receptacles centered in room
Ceiling Mounted Television Bracket and required support for GFGI television
Ceiling Mounted Retracting Video Projector Mount, similar and equal to Draper LCD Mount
4'-0" x 8'-0" Dry Marker Board

GFGI
Computer Equipment

Fax Machine
See Drawings, I-series for furnishings and furniture footprint as applicable.
27-inch Television
Video Cassette Recorder
Computer Projector

1.6.1.44 Function/Activity: Captain's Office 167

CFCI
Key Storage Cabinet

GFGI
Computer Equipment
Fax Machine
See Drawings, I-series for furnishings and furniture footprint as applicable.

1.6.1.45 Function/Activity: Physical Training 172

GFGI
Exercise Equipment
See Drawings, I-series for furnishings and furniture footprint as applicable.
27-inch Television
Video Cassette Recorder
AM/FM Stereo Receiver, Tuner, CD Player, and Cassette Player, 4 Hi-Fi Speakers

1.6.1.46 Function/Activity: Day Room 173

GFGI
See Drawings, I-series for furnishings and furniture footprint as applicable.
27-inch Television
Video Cassette Recorder
42-Inch flat Screen Television
DVD Player
AM/FM Stereo Receiver, Tuner, CD Player, and Cassette Player, 4 Hi-Fi Speakers

1.6.1.47 Function/Activity: Dining Room 174

CFCI
Built-In Wood Casework Eating Peninsula with accessible storage from each side, and minimum of 2 duplex receptacles at sides

GFGI
See Drawings, I-series for furnishings and furniture footprint as applicable.

27-inch Television
Video Cassette Recorder

1.6.1.48 Function/Activity: Kitchen 176

CFCI
Built-In Wood Casework Food Preparation Island with accessible storage from each side, and minimum of 2 duplex receptacles at sides
Built-in wood Base Cabinets
Built-in wood Wall Cabinets
Built-in 30" wide high capacity commercial Dishwasher
Built-in dual basin kitchen sink
Garbage Disposal
Gas Range/Oven, 6 burner, commercial
Kitchen Canopy Exhaust Hood
Floor Drains and Condensate Drains as required
Water supply for Ice Machine
Water Supply for Coffe Maker

GFGI
Ice Making Machine
Coffee Maker
See Drawings, I-series for furnishings and furniture footprint as applicable.

1.6.1.49 Function/Activity: Refrigerator/Freezer Room 177

CFCI
Exhaust for Room, adequate exhaust of build up of equipment heat
Floor Drain and Condensate Drain as required

GFGI
Commercial Upright Refrigerator
Commercial Upright Freezer

1.6.1.50 Function/Activity: Pantry 178

CFCI
Built-in Closet Shelving with 5 adjustable wood shelves.

1.6.1.51 Function/Activity: Mechanical/Electrical Room 179, Electrical and UPS Room 180, Mechanical Room 181, and Mechanical Room 202

CFCI
Mechanical and Electrical Building Support Equipment and accessories as required
Floor Drains as required

1.6.1.52 Function/Activity: Patio

CFCI

Built-in Gas Barbecue Grill
Floor Drain

1.6.1.53 Function/Activity: Storage Room 201

GFGI
Shelving

1.6.1.54 Function/Activity: HAZMAT Storage Building/Room 001

CFCI
4" retaining curb or other means of retaining hazardous materials as required.
Mechanical ventilation/other as required

1.6.1.55 Function/Activity: Generator Building/Room 002

CFCI
Ventilation as required

GFCI
Emergency Generator, from Building 1518, Contractor to Relocate in New Main Fire Station and coordinate phasing

1.6.2 Occupational Safety and Health

Building design shall comply with OSHA Occupational Safety and Health Standards criteria for all items which must be included in the design to ensure safety compliance.

1.6.3 Handicapped Accessibility

The public spaces of the building, and the Dispatch/911 Center shall comply with handicap accessibility requirements as outlined in the American With Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities. All spaces occupied by fire fighting personnel can be non-handicapped. Handicapped access to the main entrance and the Dispatch/911 Center shall be provided.

1.6.4 Interior Sound and Vibration Control

The facility is located off of the main access to the Post and as such, vehicle traffic occurs at all hours of the day and night, therefore sound control within the facility is very important to allow the personnel within the facility to sleep while these situations occur. When constructing walls, floors, ceilings, and roofs, materials shall be selected that will impede transmission of equipment vibrations and noise between rooms and within a room.

Interior walls requiring sound ratings shall extend up to the underside of structure, or be capped with solid ceiling construction to limit sound transmission from one space to another.

Dorm rooms, Laundry Room, Physical Training Room, and Day Room are to be enclosed in construction that have a minimum STC rating of 45 for walls. Minimum STC of 45 is required for walls and doors of these rooms.

Concrete masonry unit walls enclosing , Mechanical Rooms, Electrical Rooms , and Electrical/UPS Room, , Dispatch/911 Center Rooms, and all Shop type areas shall be sand filled to reduce sound transmission into the space and shall have minimum STC ratings of 45.

Windows and doors in Dispatch/911 Center shall be sound rated to provide a STC of 45.

Conference Room #117, Break Room #119, all corridors, toilets, lockers, and showers, Fire Chief's Office #127, Shift Leader's Office #128, Chief Fire Inspector's Office #131, Fire Inspector's Suite #130, Captain's Office #167, Library/Crew Meeting Room #166, Dining Room #173, and Kitchen #175 shall have walls with a minimum of STC 40 to 42. .

1.6.5 Physical Security

Conventional security measures, such as: door locking hardware, door viewers, cypher locks, electric strikes, card readers, proximity readers, and other means shall be incorporated into the facility design and development. See UFC -4-010-01 for other minimum applicable anti-terrorism requirements. See also specific paragraphs in this section for additional security criteria.

The Main Entry Vestibule #101 and Vestibule #129 entrances shall have remote locking capabilities controlled from the Dispatch/911 Center. All entrances to the building will have card reader capabilities and all occupants entering and exiting the facility shall be visually monitored by CCTV.

Blast Resistant and Fragment Retention glass and frame system shall be provided to exterior windows to minimize the spread of glass fragments when glass is shattered. The inner pane of insulating glass units for windows and doors shall be a minimum of 1/4-inch thick annealed laminated glass.

Access to roofs shall be controlled.

The Dispatch/911 Center and associated spaces shall have a bullet resistant and 2-hour fire rated enclosure.

1.6.6 Composition of Masses and Spaces and Architectural Details to Reflect the Desired Image, and the Scale and Nature of the Activities Involved

Features of scale such as horizontal banding, and changes in material and texture shall be used to tie the building together with the ground line and adjacent volumes and masses. Colors and materials selected for the exterior of this buildings shall be match those defined in the Installation Design Guide Guide, Fort Carson, CO and the enclosed documents and drawings. Materials selected shall be compatible with "commercial" construction.

1.6.7 Economy of Building Construction, Operation, and Maintenance: Life-Cycle Cost Effectiveness

1.6.7.1 Economy

All materials shall be readily available within the local area, as shall sufficient trades to construct the building.

No special or unique forms of construction shall be used and skilled workers within the area shall be familiar with the proper methods required to build this facility.

1.6.7.2 Operations and Maintenance

Material selections shall be based upon reducing operation and maintenance costs. All materials shall be easy to clean and resist soiling.

1.7 TECHNICAL REQUIREMENTS

1.7.1 Miscellaneous Metals

Information regarding miscellaneous metals shall be referenced to the Unified Facilities Guide Specifications (UFGS), SECTION 05500, MISCELLANEOUS METALS for design criteria and minimum quality requirements.

1.7.1.1 Steel Pipe Handrails & Guardrails

Handrails and guardrails shall meet the requirements of OSHA. All structural components of the handrails and guardrails system shall be covered with a coating system at interior locations.

1.7.1.2 Access Doors and Panels

Access doors and panels shall be flush type. Frames for access doors shall be fabricated of not lighter than 16 gauge steel with welded joints and finished with anchorage for securing into construction. Access doors shall be a minimum of 14-inches by 20-inches and of not lighter than 14 gauge steel, with stiffened edges, complete with attachments. Access doors shall be hinged to frame and provided with a flush face and a keyed operated latch. Exposed metal surfaces shall have a shop applied prime coat. Finished paint coat shall match surrounding surfaces. Panel shall be installed in unhabitable rooms (i.e., closets, janitor closets, mechanical rooms) and/or non-conspicuous locations.

1.7.1.3 Miscellaneous

Detailing and construction of louvers, motorized dampers, bird screens and ductwork shall be fully coordinated with each other and other mechanical and electrical items so as not to cause interferences. Color of louvers shall be compatible with wall material color and shall be approved as part of the color board and in accordance with the Fort Carson Installation Design Guide. All louvers shall be storm proof type to not allow entrance of wind blown precipitation. All louvers shall have bird screen mounted on the interior side of the louver.

1.7.1.4 Steel Stairs

Steel stairs shall have metal pan cement-filled treads with non-slip nosings. Stairs and accessories shall be galvanized. Stairs shall include

landing(s) as required. Landing at mezzanine shall have a removable guardrail segment.

1.7.2 Finish Carpentry

Information regarding finish carpentry shall be referenced to the Unified Facilities Guide Specifications SECTION 06200, FINISH CARPENTRY for design criteria and minimum quality requirements.

A. Fire retardant treated lumber shall not be used in this facility except at electrical and communication panel board locations.

B. All interior wood molding, shall be of the red oak species, Grade 1 in accordance with the grading rules per AWI. All interior wood trim items shall be sanded smooth and finished to match the wood doors, other trim to coordinate with interior color scheme.

C. Wood chair rails shall be molded solid oak, sanded smooth, and a minimum 2 1/2 inch in height. Wood chair rail shall be a decorative molding with several curvature moldings. Chair rail trim shall be installed at 30 inches above the finished floor. Final mounting height and dimensions shall be coordinated.

D. Shelving shall be a prefabricated particle board, 3/4-inch thick with a curved edge or 3/4-inch plywood with a continuous hardwood edge would be considered acceptable. All shelving shall be painted. Utility shelving shall be provided at locations shown on the drawings.

E. Clothing rods shall be an aluminum pipe or tubing 1 inch in diameter.

F. Window Stool shall be a solid surfacing material and shall be provided at each exterior window location. Material and decorative edge treatment characteristics shall match solid surface countertops. Window stool shall have a minimum one inch overhang at the wall/stool location.

1.7.3 Roof Design

1.7.3.1 Standing Seam Metal Roofing System

Information regarding the roof shall be referenced to the Unified Facilities Guide Specifications (UFGS) for the following sections:

SECTION 07131, ELASTOMERIC SHEET WATERPROOFING,
SECTION 07720A, ROOF VENTILATORS, GRAVITY-TYPE,
SECTION 07220, ROOF AND DECK INSULATION,
SECTION 07416A, STRUCTURAL STANDING SEAM METAL ROOF (SSSMR) SYSTEM,
for design criteria and minimum quality requirements.

A. This facility shall be covered with a standing seam metal roof system. The critical aspects of the roofing system shall be appearance, and minimal maintenance. Roof panels shall have a high performance polyvinylidene fluoride finish with minimum paint thickness of 1.0 mils. Aluminum panels shall not be permitted.

B. All roofing areas, except as otherwise noted, shall have roof slopes a minimum of 4-inches per 12-inches . Roof system shall meet the wind uplift requirements given in SECTION 01005: Structural Requirements. The standing seam metal roof system shall consist of the standing seam metal

roof on concealed clips, fastened to steel roof purlins, an ice and water shield, rigid insulation (thickness as required to meet the RSI value specified herein), continuous vapor retarder membrane, over a structural steel roof deck. The roof design presented in this document has been approved by the Post, alternate roof designs can be submitted for approval by the Post and the Corps of Engineers.

C. Primary roof slope shall be accomplished by sloping of the structural roof framing members to a gutter and downspout drainage system. The Civil Requirements Section and the enclosed drawings identify which downspouts are discharged onto a splash block and which ones are connected into the underground storm sewer system.

D. Roof system shall provide a 20 year minimum warranty and include weathertightness and finish.

E. Lightning protection shall be fully integrated and coordinated with the roofing detailing, and installation to not jeopardize in any way the roof warranty.

F. The roofing panels and concealed clips shall be capable of supporting a minimal uniform live load as calculated by the criteria defined in Section 01005: Structural Requirements.

G. Roofing panel shall be free to move in response without damage to expansion and contraction forces resulting from a total temperature range of 220 degrees F.

H. External reinforcement to improve uplift resistance, such as clamps on the ribs, and/or bolts through the seams is not considered acceptable.

I. The roofing panel finish shall be a factory applied baked-on fluoropolymer topcoat over a factory applied prime coat.

The exterior coat shall consist of a nominal 2 mil thickness consisting of a polyvinylidene fluoride topcoat and the paint manufacturer's recommended primer of not less than 0.2 mil thickness.

The interior coat shall consist of a nominal 1 mil thick polyvinylidene fluoride finish otherwise the same as the exterior and the paint manufacturer's recommended primer of not less than 0.2 mil thickness.

J. The roofing panel salt spray panel test shall receive a rating of 10 (no blistering) and a rating of 8 (3/64-inch failure) per ASTM D 714.

K. The roofing panel abrasion resistance test shall withstand a minimum of 80-100 liters.

L. A separate vapor retarder membrane (also referred as a vapor barrier) membrane shall be laid directly over the roofing deck and under the rigid insulation. The vapor retarder shall be laid over the entire facility roofing area. Care shall be exercised to not damage or rupture the vapor retarder membrane during it's installation or the installation of other roofing system components.

M. A continuous 60 mil ice and moisture water barrier membrane shall be installed at all roof eave, roof ridge, and valley conditions. The membrane shall extend a minimum of 36 inches up from the eave roof edge and on either side of the ridge and valley center line.

N. Provide snow guard (fence type) protection on the roof over all personnel and vehicle doors and adjacent walkways to the facility. Any feature that prevents sheets of ice from sliding off the roof shall be included. Snow guards shall not penetrate the roof and shall be an integral part of the roofing system and shall not affect the warranty furnished by the roofing manufacturer. Snow guard shall be factory finished and shall match that of the roof system. Adhesively applied snow guards shall not be permitted.

1.7.3.2 Roof Insulation

A. Roofing insulation shall be a polyisocyanurate type. A minimum aged "R" value of the roofing insulation shall be R-33, based upon a R-5.56 per 1-inch of thickness. Therefore, the total roofing insulation thickness allowed shall be a minimum 6-inches.

B. A single ply vapor barrier shall be installed between the roofing deck and the bottom of the roofing insulation. The thickness of the vapor barrier shall be in accordance with the roofing system standard thickness. The installation shall be in accordance with government supplied specification Section 07220 Roof Insulation.

C. Sheets shall be installed with the maximum sizes possible in order to minimize cuttings.

1.7.3.3 Roof Ventilators

A. Roofing penthouse ventilator shall be designed for wind speeds of not less than 36 meters per second (80 mph).

B. All roofing ventilators are stationary units.

C. Ventilator paint finish thickness shall match the roofing panels.

D. Bird screen shall be provided on each ventilator. Screens shall be furnished by the ventilator manufacturer and easily removed for periodic maintenance.

E. See Mechanical Requirements for additional information.

1.7.4 Exterior Insulation and Finish System (Not Used)

1.7.5 Factory Insulated (Foamed in Place) Pre-Finished Flush Metal Siding Wall Panels

Information regarding general pre-finished and factory insulated (foamed in place CFC free)flush metal wall panels shall be referenced to the Unified Facilities Guide Specifications SECTION: 07413, METAL SIDING for design criteria and minimum quality requirements. The panels shall be finished with a high performance architectural coating that shall be warranted for

20 years. Oil canning of the panels shall not be allowed.

A. The wall panels and fasteners shall be designed to withstand wind loads normal to the plane of the wall as calculated by the criteria defined in Section 01005: Structural Requirements

B. Vertically oriented wall panels shall be flush architectural type and shall have a stucco embossed exterior face. Flush is defined as a relatively smooth exterior profile with slightly grooved striations not more than 1mm (1/32") which can add a very light shadow line and as required for additional panel strength and to prevent oil-canning of the panels. Exterior skin shall be 24 gage steel minimum. Aluminum shall not be permitted.

C. The interior face of the wall panel shall have the same paint dry film thickness as the exterior metal panels.

D. The wall panel salt spray panel test shall receive a rating of 10 (no blistering) in accordance with ASTM D 714. The panel shall also have a rating of 10 with no edge creep failure at scribe per ASTM D 1654.

E. The panel formability test shall have been bent over a 1/8 or 3T, whichever is greater, in accordance with ASTM D 522 and show no evidence of fracturing to the naked eye.

F. The panel shall show no evidence of blistering and cracking when subjected to a humidity test for 1500 hours in accordance with ASTM ASTM D 2247. Panels shall be G90 galvanized.

G. The wall panel abrasion resistance test shall withstand a minimum of 80-100 liters.

H. A specular gloss value of 30 to 70 at a 60 degree angle. The wall panel color shall be in accordance with the Fort Carson Installation Design Guide and shall be semi-gloss in appearance.

I. Factory insulated wall panels shall have a UL or FM approval for Class I non load bearing wall panels. Panels shall have a flame spread not higher than 25 and a smoke development rating not higher than 450 in accordance with ASTM E 84.

J. Wall panels shall be double interlocking tongue and groove panels with concealed fasteners.

K. Interior panel skin shall be 26 gage minimum 2100 mm (7 ft.) in height above the finished floor. A matching metal 4 inch base trim shall be provided. Panels and base and accessories shall have a factory applied baked enamel finish.

L. Laminated wall panels shall not be permitted.

M. Panels shall be 2 1/2" thick and shall have an R-value of 15 minimum.

1.7.6 Sheet Metalwork, General

Information regarding general sheet metalwork shall be referenced to the Unified Facilities Guide Specifications SECTION 07600, FLASHING SHEET METAL for design criteria and minimum quality requirements.

A. Contractor shall include a quality assurance plan which includes a checklist of points to be observed, prior to start of roofing work.

B. All interior cavity thru-wall flashing shall be a metal type. A non-metal elastomeric ply sheeting is not considered to be acceptable.

C. Metal fascias, trim, and soffits shall have "V" crimps and a stable substrate as required to prevent "oil-canning" effect. Fascias, trim, flashings and soffits shall be prefinished.

D. All sheet metal work shall be done in accordance with SMACNA plate standards and recommendations.

E. Downspouts and gutters shall have a factory finish applied. Gutters shall have support straps and additional brackets as required. Galvanized or field applied painting is not acceptable. Downspout boots shall be provided to attach the downspouts to an underground drainage system where required.

F. All exposed ductwork shall be oval or round and painted to match adjacent areas.

G. All louvers shall be designed and constructed with bird screens. Louver design shall be a stormproof type so as to prevent wind blown snow and rain from entering the building.

1.7.7 Doors

Information regarding doors shall be referenced to the Unified Facilities Guide Specifications for the following sections:
SECTION 08110, STEEL DOORS AND FRAMES,
SECTION 08120, ALUMINUM DOORS AND FRAMES,
SECTION 08210, WOOD DOORS,

SECTION 08331A, METAL ROLLING COUNTER DOORS
SECTION 08361, SECTIONAL OVERHEAD DOORS
for design criteria and minimum quality requirements.

General

A. All exterior steel and aluminum door frames shall have a thermal break to prevent temperature transferring. Steel door frames shall be used with only hollow metal doors and aluminum door frames shall be used only with aluminum doors. All pressed steel door frames for all types of doors located in masonry walls shall be one-piece welded construction grouted full, with a minimum of 3 anchors per each jamb.

B. All exterior doors shall be complete door and frame assemblies which include; weatherstripping, door bottoms, and thresholds. All exterior personnel doors shall have overhead door stops as indicated herein, and an additional floor stop to prevent the doors from bending and racking when caught by the wind. The stops shall be adjusted so both stop the door at the same degree of opening..

C. All exterior doors opening on to a structural concrete stoop and shall conform to NFPA #101 for floor slope at the door.

D. Doors in fire rated walls shall be fire rated according to the fire rating requirements of the walls in which they occur. All fire doors shall be in accordance with the requirements of NFPA #101.

E. Typical personnel door leaf (single) size for wood, aluminum , and steel shall generally be 3'-0" wide x 7'-0" high x 1 3/4" thick.

F. All doors from corridors to administrative office suites that have door closers shall have magnetic hold-open devices that are tied into the buildings smoke detection and fire alarm system. The activation of a detector or alarm shall release the doors.

1.7.7.1 Steel Doors and Frames

A. All exterior personnel service and exit doors shall be a flush insulated steel door type with minimum 10-inch x 10-inch vision panels as appropriate except doors to Mechanical, Electrical, and Communications Rooms. Doors and frames shall have a designation G60 galvanized. Exterior door frames shall be a one-piece frame unit.

B. All interior personnel doors that are not wood doors shall be a flush hollow metal door type with minimum 10-inch x 10-inch vision panels except doors to Secure Areas, Janitor Closets, and Communication Rooms. Doors and frames in steel stud and gypsum wallboard walls shall have a designation A40 galvanized. All interior door frames shall be a one-piece or "dry-wall" frame unit with the "wrap-around" edges.

C. All exterior and interior steel doors and frames shall be factory primed and field finished.

D. All exterior steel doors such as for Mechanical and Electrical Rooms shall be heavy duty with a minimum of 16 gauge face sheets with 16 gauge pressed steel door frames, shall be weather tight and weatherstripped, and insulated to meet a minimum R-value of 7.

E. All interior hollow metal single and double doors located between the Apparatus Bays and the administrative portion of the facility, shops, operations areas, any occupied area, and corridors shall be fire rated according to the fire rating requirements of the walls in which they occur and shall meet the minimum exterior door thermal insulation requirements.

F. All hollow metal door construction shall meet or exceed heavy duty (Grade II) requirements. Door and door frame construction shall be rated according to the fire rating requirements of the walls where they are shown.

1.7.7.2 Aluminum Doors and Frames

A. All exterior personnel entrance doors shall be aluminum doors and incorporated into store front window wall system as applicable and as shown on the elevations. All front and secondary entry vestibule doors, other personnel entry doors at corridors, and door from the Dining Room shall be insulated medium stile aluminum doors, full glazed with integral divided lites, with an anodized aluminum finish. The glass in the exterior vestibule doors shall be 1-inch insulating laminated glass. The glass in the interior vestibule doors shall be 1-inch laminated glass. The glass in the exterior vestibule doors shall be tinted to match the exterior glazing and the glass in the interior vestibule doors shall be clear. Adjacent

glazing shall match the door glazing in color.

1.7.7.3 Wood Doors

A. All interior wood doors shall be flush solid core wood type doors with minimum 4-inch x 24-inch vision panels, except doors to private offices within office suites, toilets, and janitor closets, or unless noted herein or on the drawings on the drawings otherwise. Spaces that are exclusively administrative shall have wood doors. This includes all doors to suites from corridors. Doors to Conference Room shall be fully glazed wood doors with divided lites.

B. Doors shall be 5 ply or 7 ply construction with premium grade, book matched red oak veneer with oak edges set in pressed steel door frames per Unified Facilities Guide Specification 08210.

C. A natural transparent finish over a light stain with a medium rubbed effect shall be applied to all interior doors.

D. Interior wood bi-folding doors shall be constructed of solid core wood consisting of premium grade red oak, in accordance with Unified Facilities Guide Specification 08210. All door shall be flush type.

1.7.7.4 Sectional Overhead Doors

A. Sectional overhead doors shall be provided as shown on the drawings. Overhead doors shall be a minimum 3-inch thick, heavy duty commercial standard lift type designed to slide up and back into a horizontal overhead position. All overhead sectional door assemblies shall be coordinated with all other systems and equipment so as not to interfere during full open and closed positions.

B. The typical sectional overhead door and door support frame for large doors of the Apparatus Bays shall provide a minimum 15'-2" clearance height and a minimum width clearance of 14'-0". The smaller overhead sectional doors of the Apparatus Bay for administrative vehicle (Fire Chief, Shift Leader, and Chief Fire Inspector)shall provide a minimum 15'-2" clearance height and a minimum width clearance of 12'-0". The smaller overhead sectional door for the Breathing Apparatus Room 143, shall provide a minimum 7'-2" clearance height and a minimum width clearance of 7'-4".

C. Doors shall be designed to withstand a minimum wind load as calculated by the criteria defined in Section 01005: Structural Requirements.

D. Doors shall be equipped with torsion springs designed to operate through a minimum of 100,000 cycles. Each door shall be equipped with electric sensing edge to avoid entrapment.

E. Door exterior panel section shall be constructed of hot-dipped galvanized steel not lighter than 16 gauge. Panel sections shall be insulated and shall provide a minimum R-value of 14.5 and concealed with an inner galvanized panel section not lighter than 24 gauge.

F. Vision lites shall be glazed with DSB glass. All overhead doors shall have a minimum of three 24-inch x 12-inch windows with insulating glass, as standard with the manufacturer.

G. Door operation shall be by means of electric power operators with an auxiliary emergency chain hoist for use in the event of a power failure.

All doors must be capable of opening within a maximum of 20 seconds, and close no faster than 30 seconds. All door shall be electrically controlled by remote controls. Provide also 3 button (open, close, and stop) manually operated controls adjacent to each door and banks of manual controls at each side of the Apparatus Bays in the alcove (nearest the dorms on the sleeping area side). Doors shall be equipped with special signaling system, with red and green lights. The green light signal will turn on when the door is in the fully open position. The signaling system shall be located on the driver's side of each door, mounted approximately 6'-0" above the finished floor.See ELECTRICAL REQUIREMENTS for additional information on the door motors, remote controls, switches, controls, and power operation.

H. Door shall be factory primed and finish paint coating shall be a factory applied baked-on enamel finish.

1.7.7.5 Metal Rolling Counter Doors and Fire Shutters

A. Metal rolling counter door, frame, guides, and hood shall be fabricated of stainless steel. Door slats shall be a minimum of 22 gauge thickness. Curtain door shall be have a padlock locking capability on the inside of the room door side. Door shall be manually operated.

B. Fire shutters over windows shall maintain the fire rating of the wall the window openings are in. Fusible links and/or connectivity with the fire allarm system shall be provided.

1.7.7.6 Special Doors

A. Doors and frames located at rooms and walls shown or identified with STC requirements shall meet or exceed the shown or identified STC requirements. Completed and installed door assemblies shall be tested to ensure compliance with the shown STC requirements.

B. Door frames for double doors located where STC ratings are required will be furnished with a removable mullion frames for movement of large items through the opening.

C. Door to Dispatch/911 Center shall be bullet resistant in accordance with NFPA 1221.

1.7.8 Hardware; Builder's (General Purpose)

Information regarding door hardware shall be referenced to the Unified Facilities Guide Specifications, SECTION 08710, DOOR HARDWARE for design criteria and minimum quality requirements and as specified herein.

1.7.8.1 Hinges

All hinges shall be grade I with a minimum of 3 hinges per door for a single type door for doors 7'-0" high. Excessively heavy (sound doors) or tall doors shall have additional or special hinges provided as recommended by the door manufacturer. Hinges shall be fully recessed (mortised)and fit flush within designated frame slots.

All exterior doors shall have a A5111 type hinge, unless noted otherwise.

All interior doors shall have a A8111 type hinge, unless noted otherwise.

1.7.8.2 Locks and Latchsets

All exterior and interior door locks and latchsets shall be series 1000 mortised type.

1.7.8.3 Lock Cylinders

Lock cylinders shall not be less than seven pins.

Cylinder shall have key removable type cores. Disassembly of knobs, levers and locksets shall not be required to remove core from lockset. Fort Carson utilizes Best Locks for cores.

Provide a minimum of 5 spare cores, 2 blank master key sets and 10 blank keys.

1.7.8.4 Lock Trim

The doors of this facility shall have lever handles. All exterior doors having panic type fire exit hardware shall have lever handles opposite the exit device as exterior trim.

All exit devices installed on hollow metal and aluminum doors shall be Type 6 (Narrow Stile Concealed Vertical).

All exit devices installed on wood doors shall be Type 4 (Narrow Stile Rim Exit Device).

1.7.9 Keying

Locks and special key hardware shall be keyed to the Fort Carson master key system or equal compatible lock system with interchangeable cores.

A grand master keying system shall be provided. All of the keys shall be keyed in one series, except the mechanical, electrical and communication equipment rooms. This lock keying shall be compatible to the Post's locksmith requirements. All locks and special key hardware shall have interchangeable cores. The keying schedule shall be coordinated with the User through the Corps of Engineers.

Locks for all mechanical, electrical, and communications equipment rooms shall be keyed to the existing Base utility keying system.

1.7.10 Door Closing Devices

Surface type overhead door closures shall be Grade 1, Series CO2000 Standard Cover. Closures shall be size VI.

1.7.11 Auxiliary Hardware

Door floor stop and holder for exterior doors shall be Type L01371.

Door wall stops shall be Type L02251.

Door floor stop and holder for interior doors (without thresholds) shall be

Type L02141.

Door floor stop and holder for interior doors (with thresholds) shall be Type L02161.

Lever extension flush bolts shall be type L04081.

Metal thresholds shall be Type J16130.

Door protection plates including armor, kick, and mop plates shall be provided for all doors subject to cart traffic and other impacts. Door protection plates shall be stainless steel, type J102 and J103_finish to match the finish of the door lock.

All exterior doors shall have aluminum housed type weather seals.

All fire and smoke rated doors shall have compression type seal gasketing. All fire rated doors from offices or office suites opening onto corridors shall have magnetic hold-open devices activated by a smoke detector or the fire alarm system to close the door.

Door floor stop and holder shall be Type L01371.

All sound rated doors shall have sound seals and automatic door bottoms.

All exterior doors shall have a metal thresholds shall be Type J16190.

All exterior doors shall have a metal thresholds shall be Type J16190.

All doors identified to be insulated shall have weather seals.

1.7.12 Finishes

Door hardware finish shall match satin stainless steel Type 630.

1.7.13 Door Hardware

1.7.13.1 Hardware Requirements

Door hardware in fire rated walls shall comply with NFPA and other applicable criteria.

1.7.13.2 Hardware Sets

The following hardware sets listed are the minimum functional hardware requirements for each door types. Additional hardware may be required for each door type beyond that listed below.

a. Exterior Aluminum Doors

All single exterior personnel doors shall have the following hardware features:

Grade 1 hinges - Stainless Steel or as standard with mfr.

Exit device, Type 3,Function 08
Overhead closer - Type C02021
Overhead holder stop
Floor Stop
Weatherstripping
Threshold
Kick plate
Rain drips
Card Reader Access, except those designated as exit only
Magnetic Lock
Provide close circuit television camera at doors to monitor in Dispatch/911 Center

Main Entry Vestibule #101 Door and double exterior personnel doors shall have the following hardware features:

Grade 1 hinges - Stainless Steel or as standard with mfr.
Exit device Type 3, - Function 01, pull trim), (each door)

Card Reader Access
Magnetic Lock
Provide close circuit television camera at doors to monitor in Dispatch/911 Center
Overhead closers, - Type C02021 (each door)
Overhead holder stop (one each door)
Floor Stop (1 each door)
Weatherstripping (each door)
Threshold - continuous
Kick plates
Rain drips

b. Insulated Exterior Hollow Metal Doors

(1) All single exterior personnel doors shall have the following hardware features:

Grade 1 hinges

Exit Device, Type 3, F_08,Mortise Device (Type 3, Function 01 on doors designated as exit only).
Card Reader Access (except those designated as exit only)
Overhead closer - Type C02021
Wall or Floor stops
Overhead holder stop
Kick plate
Weatherstripping
Threshold
Rain drips

(2) All double exterior mechanical room, electrical room doors shall have the following hardware features:

Grade 1 hinges
Mortise lockset hardware F07(key locking capabilities on active leaf)
Overhead closer - Type C02021 (active leaf)
Lever extension flush bolts (inactive leaf)
Overhead holder stop (active leaf)
Wall or Floor stops (active and inactive leaf)
Kick plates
Weatherstripping
Rain drips
Thresholds

c. Interior Doors

(1) All single doors used in offices, conference room, library/crew meeting room, janitor's closets, storage rooms, fire fighting agent storage, protective clothing laundry, disinfection room, fire extinguisher maintenance, shall have the following hardware features:

Grade 1 hinges
Mortise lockset hardware (key locking capabilities - avoid self locking hardware.)
Overhead closer - Type C02021 (as required)
Kick plate
Wall stops (with holder where appropriate)
Gaketting (as required)

(2) All double doors in the path to the apparatus room shall have the following hardware features:

Grade 1 hinges
Surface vertical rod exit devices
Overhead closer - Type C02021 (both leafs)
Kick plates
Wall stops or Floor stops (with holder where appropriate)

(3) All single doors from or to the apparatus room including storage rooms, fire fighting agent storage, protective clothing laundry, disinfection room, fire extinguisher maintenance shall have the following hardware features:

Grade 1 hinges
Surface vertical rod exit devices
Overhead closer - Type C02021
Kick plates
Wall stops or Floor stops (with holder where appropriate)

(4) All single doors into dorm rooms shall have the following hardware features:

Grade 1 hinges
Mortise privacy lockset hardware
Overhead closer - Type C02021
Wall stop
Kick plate
Gaketting

(5) All single doors in classroom, recreation room, dinning room, and day room shall have the following hardware features:

Grade 1 hinges
Exit device, Type __, F__
Overhead closer
Wall stop
Kick plate
Gaketting

(6) All single doors in toilet/locker rooms shall have the following hardware features:

Grade 1 hinges
Mortise privacy lockset hardware
Overhead closer (as required
Wall stop
Kick plates

(7) All single doors into single water closet toilets shall have the following hardware features:

Grade 1 hinges
Mortise privacy lock hardware
Overhead closer
Wall stop
Kick plates

(8) All closets with bi-folding doors shall have the following hardware features:

Hook lock hardware standard for bi-folding doors.

(9) Single full glass door into conference room shall have the following hardware features:

Grade 1 hinges
Cypher lock hardware
Electric strike with switch on dispatch unit console
Overhead closer
Wall stop
Kick plate

1.7.14 Key Storage System

A surface mounted wall mounted key cabinet shall be provided in the Captain's Office #167, and contain all additional keys for all areas of this building. Cabinet shall have the capacity to store a minimum of two keys for each room on an individual key hook plus an additional capacity of 25 percent. Key hooks shall be mounted on panels with sufficient distance between hooks that will allow easy identification and removal. Cabinet key panels shall be readily removable and capable to insert additional panels for expansion needs. Key cabinet shall have key locking capabilities. Cabinet door shall be a full height piano hinge.

1.7.15 KNOX Box Exterior Key Storage

The contractor shall provide a wall mounted single "KNOX Box", used to house a building key for fire department use. The location of the Knox Box shall be in an exterior wall at the main entry in a location approved by the Fire Department. The Knox Box shall be a #3200 series from the Knox

Company, color shall be manufacturer's standard black, size shall be 5" x 4" x 3". The box is to be keyed to the Fort Carson Fire Department access keying system. Coordinate the location and alarm coding with the Fire Department. A grand master key to the building shall be provided within the Knox Box.

1.7.16 Aluminum Window Frames and Entrances

Information regarding aluminum windows shall be referenced to the Unified Facilities Guide Specifications, SECTION 08520A, ALUMINUM AND ENVIRONMENTAL CONTROL ALUMINUM WINDOWS for design criteria and minimum quality requirements.

Due to Anti-Terrorism/Force Protection requirements for this facility, all exterior window frame units shall have a frame system designed to prevent window and glass assembly from dislodging from the wall construction and window frame in a blast event. The framing shall be specially designed to have a 1-inch "bite" on the glass. Frame shall be anchored accordingly. Added bars are not acceptable.

Window manufacturer shall specialize in designing and manufacturing the type of aluminum windows specified in this section, and shall have a minimum of 10 years of documented successful experience. Exposed surfaces of aluminum windows shall be finished with anodic coating conforming to AA DAF-45: Architectural Class I, AA-M10-C22-A44, color anodic coating, 0.7 mil or thicker. Aluminum window shall generally be 3'-4" wide by 3'-4" high and in the arrangement indicated on the drawings.

Windows construction shall consist of an aluminum frame with a continuous thermal break. Performance rating of these windows shall be a HC 65 or greater in accordance with performance rating testing with AAMA 101. Windows shall have a U value of not greater than 0.50 and a solar heat gain coefficient of 40 or less. These windows shall include a 1-inch minimum insulated glazing unit as specified in Section 08810A, GLASS AND GLAZING and further defined herein. Window frames shall have a color anodized finish.

Window openings at the clerestory and "lantern" element shall be insulated translucent sandwich wall panel assembiles in aluminum frames. Panels shall be thermally broken assemblies, 2-3/4" thick, have a U-value of .23 BTU/(hr*ft2*F), and allow a minimum of 30% light transmission. Panels will be shatterproof, will not discolor or fade, shall maintain bond integrity for 20 years. Frames shall be finished to match other window frames in conformance with the Fort Carson Installation Design Guide.

Window assemblies for the Dispatch/911 Center shall be bullet resistant in accordance with NFPA 1221.

1.7.17 Aluminum Storefront/Window Wall

Aluminum storefront or window wall shall be used for the glazing of the Dining Room, Library/Crew Meeting Room, and various corridor locations. The storefront/window wall shall match all the performance specifications for aluminum windows.

1.7.18 Interior Windows

Interior windows shall consist of pressed steel frame sections with applied

stops and shall be provided to increase the amount of day lighting into rooms and for visual control. The glass shall be 1/4-inch, clear, laminated type, and fire rated where required.

Window assemblies for interior windows of the Dispatch/911 Center shall be bullet resistant in accordance with NFPA 1221.

1.7.19 Glass and Glazing

1.7.19.1 Insulated Laminated Glass

Information regarding glass and glazing shall be referenced to the unified Facilities Guide Specifications, SECTION 08810A, GLASS AND GLAZING for design criteria and minimum quality requirements.

Due to Force Protection requirements for this facility, all exterior insulated glazing units will require the inner glass unit be a laminated thermally tempered type glass. All exterior glazing units shall be installed in a manner which prevents the window and glass assembly from dislodging from the wall construction and window frame. A "wet" glazing method which provides a completely filled and continuous sealant glazing and continuous sealant bond between the glazing unit and frame will be used. Glazing colors shall be tinted in conformance with the iInstallation Design Guide. All exterior glazing units shall be a Low-E type units.

1.7.19.2 Insulated Laminated Glass- Low-E Unit

Insulated laminated type glass for door and window applications shall be a minimum of 1-inch thick. Glass panel shall consist of two - 1/4-inch glass panes separated by a 1/2-inch air space and hermetically sealed. Glass for exterior lite shall be Type I annealed glass, Class 1- clear, Quality q3- glazing select low "E" and laminated glass for the interior lite. All insulated glazing units shall be tinted light blue-green. Glass shall not be reflective. See also requirements for windows and glass.

1.7.19.3 Glass Mirrors

All glass mirrors shall be Type I transparent flat type, Class 1-clear and 1/4-inch thickness.

1.7.19.4 Laminate Glass

Laminated glass for interior applications such as interior door side-lites shall be Class 1- clear, Condition A uncoated surface, Quality q3- glazing select. Laminate glass shall consist of two layers of Type I transparent heat strengthen glass bonded together with a PVB plastic inter layer.

1.7.19.5 Bullet Resistant Glass

Bullet resistant glass shall be in accordance with the requirements of NFPA 1221 to resist medium power small arms, high power small arms, super power small arms, and high power rifles as specified in ANSI/UL 752..

1.7.20 Gypsum Wallboard and Steel Studs

Information regarding gypsum board and steel studs and furring shall be referenced to the Unified Facilities Guide Specifications, SECTION 09250, GYPSUM BOARD for design criteria and minimum quality requirements.

Manufacturer shall have specialized in the manufacturing of these material products for a minimum of 10 years of documented experience.

Installer shall have a minimum of 5 years of documented experience.

All gypsum wall board shall be a minimum of 5/8-inch thick, and meet the requirements of ASTM C 36, ASTM C442, ASTM C 475, designed with a minimum 10 psf and a deflection of L/240. Gypsum wallboard partitions shall be type "X" fire rated where required for partitions where one or two-hour fire resistant construction is required or shown. All walls or partitions that are shown or required to be fire rated and/or sound rated shall extend to the underside of the roof or floor deck above. All walls or partitions that do not extend to the underside of the roof or floor deck shall terminate not less than 6-inches above the ceiling and be braced from the top of wall to structure above as required to meet minimum deflection requirements specified herein. Wall terminating at the underside of decks and walls that are braced overhead shall accommodate deflection in the structure above and the termination shall maintain fire, smoke, and sound ratings. Acoustical sealant and fireproofing shall be as required.

All steel studs shall be placed at a maximum distance 16-inches on-center maximum and shall be sized, braced, and gaged according to the wall heights required. Manufacturer's requirements shall be consulted with regard to unbraced length.

Steel studs in exterior walls supporting masonry, brick veneer, and other exterior wall material shall be spaced and have a gage that will have a maximum deflection of L/600 (per Technical Note 28B, page 9, by the Brick Institute of America) under full wind load as calculated by the criteria defined in Section 01005: Structural Requirements.

Predecorated gypsum wallboard is not acceptable.

Exterior gypsum soffit board is not acceptable.

Water-resistant gypsum backing board used as a substrate to receive ceramic tile is not acceptable.

Steel studs to receive ceramic wall tile shall be a minimum of 20 gage and as recommended by the Tile Council of America for bracing, spacing, and thickness.

See paragraph 1.5.4, Interior Wall Finishes for level of gypsum wallboard finish.

1.7.21 Tile

Information regarding floor and wall tile shall be referenced to the Unified Facilities Guide Specifications, SECTION 09310, CERAMIC TILE, QUARRY TILE, AND PAVER TILE for design criteria and minimum quality requirements.

Floor tile in toilets, vestibules, and other locations indicated shall be installed in accordance with Tile Council of America (TCA) method F112. Floor tile in showers and shower drying areas shall be installed in accordance with Tile Council of America (TCA) method B415.

Wall tile in toilets, locker rooms, and shower areas shall be installed in accordance with Tile Council of America (TCA) method W202 or or W244.

Organic adhesive shall not be permitted.

Marble or natural stone thresholds shall be provided at all flooring transition locations involving tile and different materials.

1.7.22 Ceilings

1.7.22.1 Gypsum Board Ceiling

All gypsum wallboard ceilings shall have a light textured finish except in the toilets, showers, locker rooms, laundry room, and janitorial closets. Ceiling in the toilets, shower/locker rooms, laundry room, and janitorial closets shall have a smooth gypsum board ceiling. All gypsum wallboard ceilings in showers areas shall be water resistant gypsum wallboard. Provide support framing spaced at not more than 12-inches apart and as required to adequately support water-resistant gypsum wallboard ceilings.

1.7.22.2 Acoustical Tile Ceiling

Information regarding acoustical ceilings shall be referenced to the Unified Facilities Guide Specifications, SECTION 09510, ACOUSTICAL CEILINGS for design criteria and minimum quality requirements.

Acoustical ceiling system shall be a 24-inches x 24-inches exposed grid type. Acoustical panels shall have a square edge and recessed where the exposed grid system supports the panels. Characteristics of the acoustical panels shall consist of: textured surface, high density material to resist impact damage, non perforated tile with a textured finish. Acoustic tile ceiling shall conform to the Fort Carson Installation Design Guide standard.

Acoustical units shall have a NRC grade of 0.50 to 0.60 when tested in accordance with ASTM C423, a CAC (Ceiling Attenuation Class) range of 40-44 when tested in accordance with ASTM E1414, and LR of 0.75 to 0.80.

1.7.23 Painting, General

Information regarding painting shall be referenced to the Unified Facilities Guide Specifications, SECTION 09900, PAINT AND COATINGS for design criteria and minimum quality requirements.

1.7.23.1 Surfaces to Receive Stain or Paint

A semi-gloss enamel paint shall be on all exposed wall surfaces to be painted, except mechanical, electrical and communication rooms. A semi-gloss enamel paint shall be used on all mechanical, electrical, communication, and janitor closet walls.

The Disinfecting/EMS Decontamination room shall have an epoxy coating on the floors and on the walls up to 9'-0" above finish floor.

All gypsum wallboard ceilings shall receive a semi-gloss enamel paint finish.

Interior wood trim shall receive a stain and clear polyurethane finish.

Exposed masonry walls to be painted shall receive a latex filler coat, one coat of primer and two coats of semi-gloss paint. Concrete or masonry in unexposed locations shall receive a coat of latex filler, one coat of primer, and two coats of semi-gloss paint.

Steel roof deck, structural elements, stairs, handrails and balusters shall receive a semi-gloss paint finish.

1.7.23.2 Surfaces Not to be Painted

Surfaces in the following areas are not to be painted:

Concrete or concrete masonry units that are integrally colored or in unexposed areas.

Concrete floors - except where noted and under the raised floor system.

Metal surfaces of aluminum, stainless steel, chromium plate, bronze, copper and similar finish materials and all factory finished items.

Jacketing over pipe insulation in unexposed locations that do not require color coding.

Surfaces of hardware, fittings, sprinkler heads, fire protection equipment and other factory finished items not requiring a painted finish.

Glass, wall covering and other finish surfaces.

1.7.24 Metal Lockers

A. (Personnel) Metal lockers shall be standard lockers that are 12-inches wide x 12-inches deep x 72" high (36" per tier). Lockers shall be prime, high grade Class I annealed, cold rolled steel free from surface imperfections. All fasteners shall be zinc plated. All lockers shall be preassembled with all joints welded. No bolts, screws, or rivets shall be used in the assembly of the locker bodies. Lockers shall have 16 gage bodies. Locker tops to be sloped. Lockers shall be provided with solid panels and ventilation louvers in the doors. Doors shall be equipped with a device to receive a padlock. Metal shall be cleaned, rust inhibitive treated, and finished with a high quality enamel that is baked on. Accessories shall include upper storage shelves and coat hooks.

B. (Fire Fighting Gear) Fire Fighting Gear Lockers shall be heavy duty mesh/ventilated lockers, 2 tier, 18" x 18" x 72" each (each tier is 36" high).

1.7.25 Exterior Signage

Information regarding exterior signage shall be referenced to the Unified Facilities Guide Specifications, SECTION 10430, EXTERIOR SIGNAGE for design criteria and minimum quality requirements, and the requirements of the Installation Design Guide at Fort Carson.

Building number signage shall be cast aluminum material in a helvetica medium style, located at the building main entrance on the east side and the secondary entrance on the north side.
Building number signage shall be 8-inches tall, satin-finished brushed aluminum, and mounted at approximately 8'-8' above the finish floor. All signage shall be in accordance with the Fort Carson Installation Design Guide. Coordinate with the Department of Public Works at Fort Carson.

Door numbers signage shall be cast aluminum in a helvetica medium style,

located above each door of the apparatus bay, centered over each overhead sectional door . Door number signage shall be 12-inches high, satin-finished brushed aluminum, centered above door. Coordinate with the Department of Public Works at Fort Carson.

1.7.26 Toilet Accessories

Information regarding toilet accessories shall be referenced to the Unified Facilities Guide Specifications, SECTION 10800, TOILET ACCESSORIES for design criteria and minimum quality requirements.

1.7.26.1 Accessory Types

Shelving for janitor closets shall be constructed using plastic laminate over plywood with wood support brackets, also a 18 gauge stainless steel, satin finish shelf integral 4 mop holder and 5 hook brackets shall be supplied.

Toilet partitions, and urinal screens shall be made of stainless steel . Toilet partitions shall be floor mounted with overhead bracing.

Paper Towel Dispenser / Waste Receptacle (PTDWR)shall be a fully recessed unit suppling multi-fold paper towels. The cabinet shall have a concealed tumbler key lock. Unit shall have a 10 gallon minimum removable molded plastic insert.

Electric hand dryers, see Section 01007.

Grab Bar (GB) shall have concealed mounting flange with set screw mounting holes concealed on the lip of the flange. Grab bars shall have a peeled non-slip surface.

Soap Dispenser (SD) shall be the liquid type pump type with a minimum 34 fluid ounce capacity. Dispenser shall be mounted on the lavatory fixture.

Mirror Glass(MG) mirrors shall be a minimum of 16-inches wide by 20-inches deep and shall be installed over each lavatory, see drawings for locations. A full length 20-inches X 6'-0" mirror shall be installed in each locker room, see drawings for location. Tilting type mirrors sized which meet American With Disabilities Act standards shall be installed in the handicapped toilets and over any handicapped lavatory. The west wall of Physical Fitness #171 shall have a floor to ceiling mirror installed on the west wall.

Toilet Tissue Dispenser (TTD) shall be a double roll dispenser with a recessed holder, integrated into the toilet partitions where applicable.

Sanitary Napkin Dispenser (SND) shall be wall mounted and mounted in Women's Toilet #160.

Sanitary Napkin Disposer (SND)shall be installed where indicated.

Soap Holder (SH) shall be tile and integral with shower tile.

Robe Hook (RH) shall be a double hook with a 4 inches wide stainless steel bar mounted horizontally that forms a hook at each end. Flange approximately size is 2-inches x 2-inches. Unit extends approximately 2-inches from the wall.

Shower enclosures shall be full height ceramic tile on concrete backer board with a terrazzo shower basin, and drain.

Shower doors shall be tempered swinging glass units with outswinging door hinges. Doors shall be equipped with standard handles and latches. Doors shall be completely water-tight units that will not corrode.

1.7.26.2 Toilet Accessory Finishes

Finishes shall match stainless steel, Type 304.

1.7.26.3 Miscellaneous Accessories

Shelf & Holder- a single mop broom holder with a metal self and bracket shall be provided in the Janitor Closets. Units shall be approximately 34"(w) x 16" (h) x 8" (d), fabricated of 18 gauge, Type 304 stainless steel with #4 satin finish. The unit shall have 4 metal hooks and 3 mop holders.

1.7.26.4 Toilet Accessories Requirements

Fire Chief's Toilet #126 shall have toilet accessories as follows:

1 Mirror (above counter)
1 Toilet Tissue Dispenser
1 Towel Bar
1 Robe Hook
1 Paper Towel Dispenser/ Waste Receptacle
1 Full Height Mirror
1 Shower Curtain and 1 Shower Curtain Rod

Dispatch/911 CenterToilet #110
1 Mirror (above counter)
1 Toilet Tissue Dispenser
1 Towel Bar
1 Robe Hook
1 Paper Towel Dispenser/ Waste Receptacle
1 Sanitary Napkin Disposer
r

Public (Handicapped) Toilet #112
1 Tilted Handicapped Mirror
2 Grab Bars
1 Toilet Tissue Dispenser
1 Sanitary Napkin Disposer
1 Paper Towel Dispenser/ Waste Receptacle

Men's Showers/Lockers #156
3 Towel Bars
6 Robe Hooks
6 Shower Curtains and 6 Shower Curtain Rods
14 Personnel Lockers

Men's Sinks # 157
1 Large Mirror
2 Liquid Soap Holders
2 Paper Towel Dispensers/Waste Receptacles

Men's Toilet #158

3 2-Roll Toilet Tissue Dispensers
3 Robe Hooks (on toilet partition doors)

Janitor Closet #159
1 Floor Mop Sink
1 Shelf with Mop Holders

Women's Toilet #160
1 Large Mirror
1 Liquid Soap Dispensers
1 Paper Towel Dispenser/ Waste Receptacle
1 Sanitary Napkin Dispenser
1 Sanitary Napkin Disposer
1 2-Roll Toilet Tissue Dispensers
1 Robe Hooks (on toilet partition doors)
4 Personnel Lockers

Women's Shower #161
1 Towel Bars
2 Robe Hooks
2 Shower Curtains and 2 Shower Curtain Rods

1.7.27 Fire Extinguishers and Cabinets

Information regarding fire extinguishers and cabinets shall be referenced to the Unified Facilities Guide Specifications, SECTION 05500, for design criteria and minimum quality requirements. Furnish additionally a (5-pound) fire extinguishers (type meeting the code and hazard requirements of the space) sized to fit into the fire extinguisher cabinets selected.

Fire extinguisher cabinets shall be fully recessed type where wall construction allows or a semi-recessed type based on wall construction with a flat metal door. Fire extinguisher cabinets shall be sized for a future 10 pound fire extinguisher cabinet. Clear plastic bubble type door fronts are not acceptable. Each fire extinguisher cabinets shall hold a 5 lb type ABC extinguisher. The fire extinguisher cabinets shall be located in accordance with NFPA Life Safety Code #101, and NFPA #10. Fire extinguisher cabinets shall be brushed aluminum finished.

Fire extinguisher cabinets shall not be located on any walls designated with STC requirements.

1.7.28 Casework, Cabinets & Countertops

Information regarding cabinets and countertops shall be referenced to the Unified Facilities Guide Specifications, SECTION 06410, LAMINATE CLAD ARCHITECTURAL CASEWORK for design criteria and minimum quality requirements with additional requirements added to specifications to obtain commercial premium grade architectural woodwork, base and wall cabinets, and countertops. Solid surface countertops shall be provided for all countertops and shall be referenced to the Department of the Navy Guide Specifications, SECTION 06650 for design criteria and minimum quality requirements.

All cabinet construction shall meet the requirements of the Architectural Woodwork Institute, Quality Standards. Cabinets shall be provided where indicated on the drawings. Cabinets shall be standard, factory-manufactured products of modular cabinets suppliers or custom-built units. Frame type cabinets shall be supplied. Top and bottom corners shall be braced with either hardwood blocks that are glued together with water resistant glue and nailed in place, or metal or plastic corner braces. All cabinets shall be constructed of solid wood or five-ply plywood. The cabinet construction frame and doors shall meet minimum premium grade requirements set forth in AWI, Architectural Woodwork Institute, Quality Standards. All points of hardware attachment (e.g. screws, hinges) must be inserted into solid wood lumber. The finish of all exposed exterior cabinets, door surfaces shall be plastic laminate. All counter tops shall be solid polymer resin. The finish of the interior cabinets, shelving, and interior door surfaces shall be plastic laminate.

Doors- shall be finished with plastic laminate and shall be approximately 1/2-inch thick.

Drawers will have side guides with an automatic stop feature. Sides and bottom will be constructed of 3/8-inch thick hardwood or plywood. Drawer fronts shall be removable and replaceable. All drawers shall be dove-tail jointed.

Solid Surface Countertop- shall consist of solid polymer material composed of acrylic polymer, mineral fillers, and pigments. Countertops shall have a semi-gloss finish. Countertop material shall have a minimum 1/2 inch thickness and be continuously supported with particle board. Countertop material of 3/4 inch thickness shall not require continuous supported particle board material. Sinks shall have an under mount installation and all exposed countertop edges shall have a decorative grooved edge treatment. Backsplashes hall be a 1/4 inch thick solid surface material which matches the countertops.

Solid Surface Material Characteristics:
- color and pattern continuous all through the material,
- material shall not delaminate with age,
- installation joints shall be seamless in appearance,
- shall not be porous and resist stains,
- shall resist fractures, chipping and cracking,
  - have the ability to remove minor cuts and scratches with fine sand paper and restore it to the original condition,
- Class I flammability rating,
- vanity tops and bowls shall be fabricated in one unit (when possible),
- sinks with exposed lips and grout joints is considered unacceptable.

All exposed edges of the countertops shall be rounded.

Cabinet hardware finishes shall match stainless steel, Type 304. Door hardware shall be as follows:
- door pulls- shall be similar to BHMA D1791,
- door hinges- a minimum of two concealed hinges with each door (similar to BHMA B01501),
- door latch- a magnetic door catch, similar to BHMA B03141 for each door,
- mirrors- shall extend for top of backsplash to 7 ft.

1.7.28.1 Cabinet, Closets, Countertops, Vanity Requirements

A. Typical Dorm room Locker

Wood shelf at top of the unit (hat shelf)
Metal closet clothing bar similar to BHMA L03141
Wood bottom drawer
Lockable wood door concealed hinges

B. Typical Dorm room Writing Counter

Plastic laminate counter top
Solid casework box above with adjustable shelf
Under shelf task lighting above the work surface

C. Secretary/Receptionist Counter #103

Reception desk/counter in Secretary/Receptionist Area #103, unit shall include: adjustable keyboard, pencil drawer, minimum 2 pedestals, task lighting along length on one of the work surfaces, sitting height work surface, handicapped height counter segment, and a transition counter at standing height for visitors. Counters shall be constructed of a solid polymer material.

Solid surface polymer writing surface and elevated countertop
Adjustable keyboard
Pencil drawer
2 Legal File Cabinet Drawers minimum
Task lighting
Minimum of 2 pedestals
Transition counter

Handicapped Portion

D. Dorm room Closets

Wood shelf running the entire length of closet
Metal closet clothing bar similar to BHMA L03141

E. Wood Storage/Wardrobe Cabinets

Wood veneer lockable doors with concealed hinges
Plastic laminated covered shelves (5 total) with 75 lb capacity each

F. Kitchen Cabinets, Room #175

Solid surface polymer countertop
Cabinet draws, cabinet doors, and overhead doors are to be aligned
Door shall be plastic laminate covered with concealed hinges
Overhead cabinets shall be 12-inches deep
Space above cabinets and ceiling shall be filled with gypsum board soffit
Backsplash and countertop shall be integral
Provide one door pull per cabinet door and drawer
Provide magnetic catch for each door

Contractor shall coordinate kitchen cabinet design with kitchen appliances
Each overhead cabinet shall have 2 adjustable shelves
Each under counter cabinet shall have one adjustable shelf
Cabinets shall be adjusted for under counter microwave unit

G. Kitchen Island Cabinets

Solid surface polymer countertop
Cabinet drawers, cabinet doors are to be aligned
Door shall be plastic laminate covered with concealed hinges
Provide one door pull per cabinet door and drawer
Provide magnetic catch for each door
Contractor shall coordinate kitchen cabinet design with kitchen appliances
Each under counter cabinet shall have one adjustable shelf
Cabinets shall be adjusted for under counter microwave unit

H. Countertop Eating Area

Solid surface polymer countertop
Provide clear plastic protection plates to prevent scuffing of the casework. Protection plates shall run from floor to the underside of the countertop.

I. Laundry Counter, Room #163

Solid surface polymer countertop
Backsplash and countertop shall be integral
Countertop shall be without drawers or doors under the counter
All structural supports shall be concealed within the counter design
Counter shall be able to support 70 lbs

J. Toilets

Solid surface polymer countertop
Cabinets shall meet handicapped requirements where applicable
Backsplash and countertop shall be integral

1.7.29 Miscellaneous Equipment

1.7.29.1 Floor Mat and Frame

Information regarding floor mats and frames shall be referenced to the Unified Facilities Guide Specifications, SECTION 12675, RECESSED FLOOR MAT AND FRAME for design criteria and minimum quality requirements.

Entire floor mat and frame shall be fully recessed and flush with adjacent surfaces. The frame shall be constructed of aluminum extrusions and secured to the floor. The mat shall consist of carpet inserts with continuous interlocking treads which allows for easy roll-up. Floor mat size shall be approximately as shown on the drawings.

1.7.29.2 Marker Board

Marker board size shall be 6'-0" x 14'-0". Marker board writing surface shall be composed of porcelain enamel fused to nominal 28 gage thick steel. A 2-inch oak perimeter frame shall be provided. Marker board shall be in

accordance with Unified Facilities Guide Specification - Section 10100, Visual Communication Specialties

1.7.29.3 Raised Floor System

Information regarding floor panels shall be referenced to the Corps of Engineer Guide Specifications, SECTION 10270, RAISED FLOOR SYSTEM for design criteria and minimum quality requirements.

A. A raised floor system shall be provided in the Dispatch/911 Center as shown on the plans. The proposed floor panels shall require a pedestal and stringer support system.

B. Floor panels shall be capable of supporting 1500 pounds concentrated load without permanently deflecting per UFGS Guide specifications.

C. Floor panels shall be die-cast or extruded aluminum over a pedestal and stringer support system. Panel sizes shall be 2 foot width x 2 foot length. Finished surface of raised floor system shall be finished with floor surfacing materials to match adjacent floor surfaces. Floor finish shall be removable carpet tiles.

D. Flooring shall comply with conductive surfacing requirements.

1.7.29.4 Wall and Corner Protection

Integrally colored vinyl corner protection corner guards shall be a minimum of 3-inches x 3-inches x 4'-0" high and include aluminum retainer, end and closure caps, and accessories. Coordinate the color of the corner guards with the interior color scheme.

Stainless steel corner guards at concrete masonry units shall be a minimum of 4-inches x 4-inches x 5'-0" high.

PART 2 NOT USED

PART 3 NOT USED

-- End of Section --